

# THE NEW-CHURCH REVIEW

A QUARTERLY JOURNAL OF THE CHRISTIAN THOUGHT AND LIFE SET  
FORTH FROM THE SCRIPTURES BY EMANUEL SWEDENBORG

JULY, 1913

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BOSTON:

THE MASSACHUSETTS NEW-CHURCH UNION

134 BOWDOIN STREET.

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ALBERT P. CARTER, Treas.

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(POSTAGE TO CANADA 12 CENTS, AND TO EUROPE 25 CENTS EXTRA PER ANNUM.)

# The New-Church Review

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THE NEW-CHURCH REVIEW is the lineal descendant of the *New-Jerusalem Magazine*, which was established as a monthly periodical in 1827. In 1893 it was believed that a quarterly review of the progress of the church and the world, allowing for longer articles and a more comprehensive treatment of subjects, would be of greater service. The form was therefore changed and a characteristic title adopted. The field to be covered has been the same for this long period now approaching a century, but greatly changed and ever changing more swiftly. The light in which it is viewed is from the writings of Emanuel Swedenborg, unfolding as they do the spiritual meaning of the Holy Scriptures and fulfilling the prophecy of the Lord's second coming to save mankind.

The REVIEW is seeking to set forth these principles, which are represented in the closing chapters of the Word by the symbolic New Jerusalem, descending from God out of heaven to a new earth (Rev. xxi, 1, 2). It is endeavoring to show their application not only to the organized New Church but also to the world in this period of transition and upheaval that is ushering in a "new era" of thought and life. In this effort it has been supported by able writers both in this country and abroad; and with such success as to call forth warm commendations.

The Board of Editors, as now organized, consists of the Rev. H. Clinton Hay as managing editor, and of the Rev. Lewis F. Hite and Mr. B. A. Whittermore; with the Rev. James Reed in an advisory capacity.

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**\$2.00 A YEAR. SINGLE NUMBERS 50 CENTS.**

Postage to Canada 12 cents, and to Europe 25 cents extra per annum.

**The Massachusetts New-Church Union**

134 Bowdoin Street,

Boston

THE  
NEW-CHURCH REVIEW

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VOL. XX.]

JULY, 1913

[No. 3.

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THE DIVINE AND THE HUMAN IN REVELATION

TWICE in the later chapters of the Book of Revelation, once in the nineteenth chapter and once in the twenty-second, we read that John was about to worship his angel guide and instructor. In the first instance it was the angel who speaking for a great rejoicing multitude bade him to write, "Blessed are they which are called unto the marriage supper of the Lamb; these are the true sayings of God"; and in the second instance it was the angel who showed him the bride, the Lamb's wife, the Holy City New Jerusalem descending out of heaven from God, and who presently declared, "I am Alpha and Omega, the beginning and the end, the first and the last....I Jesus have sent mine angel to testify unto you these things in the churches." John twice fell down to worship, but both angels refused his worship, answering in almost the same words: "See thou do it not: I am thy fellow servant, and of them that have the testimony of Jesus: worship God."

In comment upon these verses of the Revelation Swedenborg explains the seeming contradiction of these angels who spoke the message of heaven and of the Lord, and could even say, "I am Alpha and Omega....I Jesus," and who still refused to accept John's worship, saying, "I am thy fellow servant; worship God." They were angels; and angels, Swedenborg here reminds us, are not superior to

men, but they are their equals, and they are therefore the Lord's servants, just as men are. The more they excel men in wisdom, the more they acknowledge this. They are associated with men, he tells us, as brethren with brethren, in the worship and service of the Lord. (See *Apocalypse Revealed*, Contents chaps. xix and xxii, and nn. 818 and 946.) But these angels were filled with the Lord's spirit, to speak His message, and when filled with His spirit, they spoke as if they were the Lord; but as soon as an angel has so spoken, he returns to himself, and knows that he is only an angel. (*Apocalypse Explained*, n. 1228.) This, we are taught, is a frequent experience in heaven, when the Lord fills an angel with His presence to speak His word to others. It was also in this way that the Lord revealed Himself to the patriarchs and prophets. (*Heaven and Hell*, nn. 121, 254; *Apocalypse Explained*, n. 412; *Spiritual Diary*, nn. 2886, 2990; *Apocalypse Revealed*, n. 945.)

It is not our present purpose to go fully into the subject of the Lord's presence through an angel, but to see pictured in the experience of John, the difficulty always experienced by men in distinguishing the Divine and the human in revelation. The Lord knows that we have this difficulty, for He describes it in His Word, and perhaps that we have it especially in the revelations to the New Church, for they were angels who announced the gospel of the New Church and showed the Holy City whom John was about to worship. The Lord speaks to warn us of this difficulty, to remind us that it is a difficulty, in which we need to be patient with one another. He speaks to warn us not to confuse the two elements in revelation, and not to worship as Divine what is human like ourselves.

Speech, as a means of communicating thought and affection from one mind to another, may be thought of as a bridge, and to be an effective bridge it must have firm abutments and make good connections at both ends. The principle is well illustrated in our communication with children. We choose words that the child knows, and express our thought not abstractly, but in the form of story or example

which will be real and living to the child. The principle is fundamental in instructing children in every branch of study; it not only guides our selection of subjects and of methods of study, but in the imparting of a particular thought it leads us to prepare the mind of the child by the revival and arrangement of facts already known to insure the reception and secure lodgement of the new idea. In general, we must know the child whom we would teach; not only his vocabulary and his previous knowledge, but his interests, and enter into them with sympathy, if we hope to be successful teachers. It goes without saying, that we must ourselves have a clear grasp of our subject and feel the reality of what we would impart; but it is equally necessary that we shall make real and living connection with the child, that the bridge shall have firm abutments at both ends. How often the failure of a teacher is just here; he knows his subject; he knows the particular thought which he would express, but he does not know the children whom he would teach. He fails to make connection at the children's end; his bridge hangs out into space, and is useless.

For example, you may speak to children abstractly of the necessity for learning obedience and self-control, for forming habits of accuracy and diligence, and your words are wasted. But instead you bow low to a company of kings and queens. Yes, certainly they are kings and queens; have they not each one of them a multitude of servants which it is their business to train to prompt obedience? Here are ten, the fingers, which they must teach not to do harm; but must train to obey quickly, and to be strong and quick and skillful in their work. Here are two servants, the feet, which must be taught not to go in forbidden ways, not to loiter when on an errand, but to go quickly and always in the right way. Here are two servants, the eyes, which must be trained not to wander away from the book or the sewing, but to look where they should, and to see truly. And this servant, the tongue; that needs such patient training not to say what is untrue, what is not kind, but to be bold to speak the truth, and ready with a

kind word. And besides the powers of body which need careful training, there are the powers of mind, of attending, of thinking, of remembering; they must be carefully watched and trained to do their duty, and to be quick and strong and accurate. This is what we are doing in the gymnasium and in school. Yes, each one of you has a host of servants to train, to make obedient, to hold back from wrong and to make strong and skillful. Where did you get these kingdoms and this power? From the Lord, who is King of kings and Lord of lords, whom we must all obey. A lesson upon obedience and self-control developed along these lines appeals to the experience of children, it makes connection, and is long remembered.

It is the same if you would communicate with farmers from the field, with sailors from the sea; you must know your hearers, not only their language and vocabulary, but their interests, their joys and sorrows, their hopes and fears, and clothe your thought in forms familiar to their life, else the bridge makes no connection with those whom you address. If it is contended that we may express a thought abstractly and leave it to our hearers each to embody it in concrete form from his own experience, that simply means that we leave the hearer to build his end of the bridge; it must be built before connection is made. And just here lies the power of those speakers and writers who do not leave a teaching as an abstraction, but apply the principle to concrete cases, and illustrate it from nature and from experience, adding illustration to illustration, to make sure that some one among them will appeal to every mind. They do not leave the bridge hanging in the air; they do not trust the hearer to build the abutment at his end; but they build the whole bridge, being sure in the first place that its arch springs from a solid foundation of knowledge and experience at their end, and in the second place that it rests solid at the other end in the familiar knowledge and experience of the hearer. The success of speakers rich in example and illustration, like our own Chauncey Giles, in making connection with their hearers, proves them to be the master bridge-builders.

The wise ancients told of a winged horse, Pegasus, which struck with his hoof the hard rock of Helicon, and the fountain of the muses burst forth. "By the winged horse," so it was declared by angels, "the ancients understood the understanding of truth, by means of which is wisdom; by his hoofs they understood the experiences through which is natural intelligence; and by nine virgins, knowledges of every kind." (True Christian Religion, n. 693.) They knew that spiritual intelligence must strike the facts of natural life before it gives us knowledge.

Is the principle clear, that the bridge of communication for the transmission of thought and affection from one mind to another, must have solid concrete abutments at both ends? Not only at the end of the one who communicates the thought, which insures the substantial character of the message at its start, but what is equally important, an abutment in the mind of the recipient, of knowledge and experience previously acquired, which are his own and already a part of his life.

The principle has abundant illustration in the writings of Swedenborg, and also the philosophy of the principle is clearly explained. And here the bridge-building is the more wonderful on account of the height from which the spanning arch must spring. For the truth to be taught is heavenly truth, "heavenly doctrine" Swedenborg himself calls it, as in the title of the little work, "The New Jerusalem and its Heavenly Doctrine"; and he even says of it, that from the first day of his call he received nothing pertaining to the doctrines of that Church (the New Jerusalem) from any angel, but from the Lord alone, while he read the Word. (True Christian Religion, n. 779.) From this great height the arch of the bridge must spring, from the knowledge and experience of heaven, and even from the Divine wisdom of the Lord; and yet if it is to be a bridge and a real communication, it must rest at man's end in his natural knowledge and experience. This necessity Swedenborg clearly recognized, and first in his own case. He writes to his friend Ettinger of the import-

ance of a knowledge of natural science, "that the spiritual things which are being revealed at the present day may be taught and understood naturally and rationally." And he adds: "For this reason I was introduced by the Lord first into the natural sciences, and thus prepared," during the thirty-four years preceding the opening of heaven to him. (Documents, vol. i, p. 232.) How well and thoroughly the basis of natural knowledge was laid we have evidence in Swedenborg's scientific writings, ranging from the study of mathematics and elemental forms, through geology and metallurgy, anatomy and physiology, to study of the brain and of psychology. In this scientific study, into which was gathered the best fruits of the world's learning, and in wide experience of human life, was laid in Swedenborg's own mind the basis in which the arch of the stupendous bridge might rest at its lower end.

And not only did he recognize in himself the necessity for this preparation for receiving instruction from on high, but he saw that the message could not be communicated in any abstract form to others, but that to be appropriated by others, it must for them have embodiment in concrete forms of knowledge and experience. Very often after explaining some proposition abstractly he turns to concrete embodiments of the principle with some phrase like this: "But confirmations from experience are better, since the deductions of reason are not comprehended by many." (Heaven and Hell, n. 435.) "But these subjects ought to be illustrated by experiences, else things so unknown and rendered so obscure by hypotheses cannot be brought forth into the light. The illustrative experiences shall be presented at the close of some of the following chapters." (Arcana Cœlestia, n. 6058.) You recognize in this a statement of the reason for the introduction of the memorable relations and other paragraphs of description and experience between the chapters of several of his works. They help to lay the concrete basis in which the abstract principles may rest. And besides these more extended examples of Swedenborg's method of instruction, how

often he appeals to common human experience and to nature to make concrete the principle of spiritual life which he is teaching! Words like these in a chapter upon the will and understanding have a familiar sound: "Now because it is scarcely known in the world what will and love are, but it is known what the heart and the lungs are—for the two latter are objects of sight and can be examined, and also have been examined and described by anatomists, whereas the will and understanding are not objects of sight, and cannot be so examined—therefore when it is known that they correspond, and by correspondences make one, many arcana concerning the will and understanding may be discovered which cannot be discovered otherwise—as concerning the conjunction of the will with the understanding, and the reciprocal conjunction of the understanding with the will," etc. (*Divine Love and Wisdom*, n. 385.) Or this: "From the correspondence of the heart with the will, and of the understanding with the lungs, can be known all things which can be known concerning the will and the understanding, or concerning love and wisdom; thus concerning the soul of man." (*Ibid.*, n. 394.)

We notice here Swedenborg's custom of choosing when possible a natural illustration of the truth he would teach, which is fully a correspondence, an actual embodiment of the spiritual truth which he is presenting; for in that case the natural thing not only illustrates but actually demonstrates the spiritual truth. But the point we would now emphasize is, that he was not content to present a principle abstractly, but illustrated and applied. Often the illustration is from facts of nature drawn from the books of the anatomists and of other students and teachers of science. In this way he appeals to Swammerdam and the description of the wonders of insect life in his *Book of Nature*, to make concrete the thought of the Divine operation in all the works of nature. (*Divine Love and Wisdom*, n. 351; *True Christian Religion*, n. 585.) He also calls upon common knowledge and experience for illustration. He draws the picture of a servant coming to

his master with soiled face and clothes, saying, Wash me, my Lord; and of the master replying, You foolish servant, what are you saying? There are water, soap, and a towel; have you not hands and power to use them? Wash yourself (*True Christian Religion*, n. 331); to teach the duty of using the power given us by the Lord to remove evil and to do good. He likens heavenly love with its perceptions and satisfactions to a noble fruit tree reaching out its branches full of leaves and fruit; and infernal love with its affections of falsity and evil enjoyments, to a crafty spider in its web, entangling and devouring its prey. (*Divine Providence*, n. 107.)

We shall presently consider the amazing mercy of the Lord in allowing our imperfect knowledge and our meagre experience to serve as the basis at our end, of His message of heavenly and Divine instruction; but the point of immediate interest is, that there is need, even in the case of a Divine message, for a basis at man's end built from his natural knowledge and experience; from each one's own knowledge and experience; from such knowledge and experience as are current in the world and are available for the building of this abutment of the bridge. This basis of reception of a message, even of a Divine message, must be different with different persons; it must change with the growing knowledge and changing conditions of the world. The message of truth may remain the same; if it is Divine truth it must remain eternally the same, but the forms in which it is received, the knowledge and experience in which it is received, in the nature of the case partake of what is temporary and local and must change. This is the human element in revelation, which we must distinguish from the Divine, lest we make the mistake of John, and fall down to worship before the feet of the angel, when we should worship the Lord alone. This we must consider in relation to the giving of the Holy Word, the Sacred Scriptures, but one other thought in passing, of the bearing of this principle true of all communication, of all instruction and revelation, upon our regard for Sweden-

borg and for the writings that have come to us from his pen.

We are in no danger of worshipping the man Swedenborg as Divine. To do so would be blasphemy. To do so, we know, would be abhorrent to him. Was the incident of John and the angel perhaps in his mind, when he withheld his name from the title page of his first religious writings, and later wrote his name with the words "Servant of the Lord Jesus Christ"? The words at least remind us of the angel's words to John, "I am thy fellow-servant, and of thy brethren that have the testimony of Jesus."

But while we are not in danger of worshipping Swedenborg as Divine, and know him only as a servant of the Lord Jesus, like ourselves, still we may be in danger of confusing the Divine and the human in his writings. The principle of doctrine which he teaches is Divine, given (as he declares) by no angel, but by the Lord alone, while he read the Word; yet the facts of natural science by which he illustrates and confirms the truth are gathered from the anatomists and men of science of his day; the experiences in which he shows the truth embodied are from his own experience and from the customs of his time. The principle, the doctrine taught will stand forever true, the natural knowledge and experience which embody it and give it concrete form are necessarily in some measure temporary and local. If it should be proved that in some instances there are errors in the science that is used by Swedenborg to illustrate and confirm a principle of doctrine,—I am not saying that there are errors, and I should be slow in any given case to believe that an error is proved,—but if error should be proved, it would not in the least affect the truth of the principle or doctrine. Or suppose the customs appealed to as embodying the principle presented change; and in the progress of the world they must change; this does not touch the principle, and should not obscure it for us. We should not assume because certain conditions of human life and certain customs are mentioned as embodying and illustrating a doctrine, that those conditions and

customs are necessarily permanent, or that they are ideal; we should be able to see the eternal principles of truth in the forms (necessarily in some degree local and temporary) which have brought them to us, and to apply the principles to changing, and let us trust, to improving conditions. In this attitude there is full reverence for the doctrine, full acknowledgement that it is from heaven, given by no angel but by the Lord alone to Swedenborg in the reading of the Word; but with this there is a just distinguishing between the Divine and the human in revelation, which may save us from worshipping the angel, and lead us to worship the Lord alone.

The principle here presented, if we can clearly see it and apply it, will I believe go far to remove the difficulty which many persons have felt with Swedenborg's work on "Marriage Love," especially with the part of the book which treats of the evil conditions which are opposed to marriage. In this book Swedenborg expressly declares his purpose to present the principles which he would teach, in concrete form, as embodied in familiar and accepted customs, in order that they may come to rational understanding. In the preface to the chapter on Betrothals and Nuptials he writes: "The things written in this book have for their end that the reader may see truths of his own reason and thus assent....It is for this reason that in this chapter many things are adduced which are accepted customs; such as that selection is by the men; that parents are to be consulted; that pledges are to be given; that a marriage covenant is to be entered into before the nuptials; that this is to be consecrated by a priest; that there are to be nuptial ceremonies; and many other things—which are adduced to the end that man may of his own reason see that such things are assigned to marriage love as are requisite to advance and fulfill it." (Conjugial Love, n. 295.) The accepted customs are appealed to as making clear to the reason the principles that are being taught, and with the purpose that the principles may make the customs more living. But it does not follow that these same customs will

necessarily be adhered to in all times and places, or that they are the only customs or the best customs to advance and fulfill true marriage love. And so when we read in the chapters describing evil states, of conditions which have been prevalent in the world, it does not follow that they are necessary conditions, still less that they are conditions approved by our author or by God. There is reason to hope that conditions are already improving; be that as it may, we know that in time to come they will improve. Will the book then be obsolete? Not at all. It will still bring to men a message of universal and eternal truth as necessary in the new and improved conditions as in the old. Read so, with a just discrimination between the principles of doctrine taught and the human customs and conditions used to present those principles concretely, between the Divine and the human in revelation, the book which has seemed to some to be already of the past, and to hinder and not help the forward movement of the times, will take and keep its place in the front rank of advance, teaching the great truth of the Divine origin and the sanctity of marriage as it nowhere else is taught; showing the spiritual nature of marriage and therefore the blessedness of obedience and the sad consequences of disobedience to its laws as they nowhere else are shown. Read so, it not only enjoins purity of personal life, but it comes with a command to work for the cause of purity in the world, and for the sanctity of marriage and of home, inspired by the highest ideal, strengthened by the assurance that we work in the Lord's cause which must succeed. Distinguish between the Divine and the human in revelation, and worship God.

But we delay too long to consider the grandest application of our subject, the application to the Holy Word, the Sacred Scriptures. When the claim is made, that the Scriptures are the Word of God, we are met at once by the question, Why is the Bible so like other books? Why is it given in so common a form; in the form of history, song, and parable, seemingly not more sublime than other writings? If it is the Word of God, why was it not given

in a Divinely perfect form, a form which would at once on its face show the book to be Divine? We answer by asking another question. Why was the Bible given in Hebrew and in Greek, and not in some Divinely perfect language? The answer is easy: it would not have been understood; it would have been no revelation; for it would have failed to reach the people whom it was intended to help. It would have been a bridge hanging useless in the air, having no resting place, no abutment, in the minds of men. The same reasoning goes further, and shows that if God's Word is to reach to men it must be given not only in their language, but in their forms of thought, in terms of such knowledge and interests as men have.

If this principle is true, how idle is criticism or condemnation of the Bible which is based merely on seeming imperfections in its letter, on supposed inaccuracies in its science or its history. Such things are of the outer garment of the Word, taken from men's minds, such things as men knew, such materials as they could offer in the localities and the times in which the Word was given. Imperfections in these, if any such are shown to exist, no more affect the Divinity of the Word than some defect in the print or binding of your copy. They show God's care that the bridge which He builds between Himself and men shall not only at one end rest securely in the Divine truth and love, but that at the other end it shall have basis in natural knowledge and experience familiar to men.

The underlying fact, which makes it possible to clothe Divine thoughts and Divine love in language intelligible to men, is the fact of correspondence; the fact that every thing of nature is created and lives from God, so that each object and each activity of nature is the expression of something of His love and wisdom, and stands as a symbol of all that is behind it, back to its Divine source.

But there are evil things in nature, destructive storms, cruel animals, and poisonous plants. That is because the forces of life do not flow from God immediately into nature, but mediately, through the world of human life,

through heaven and hell. So life is perverted, and evil forms appear in nature with the good; and so long as there is evil in mankind it is well that it reflects itself in nature, presenting to man an exact image of his faults and so helping him to overcome them.

This fact of correspondence between nature and all things of human and of Divine life makes possible the parable, in which in simple pictures and stories of nature the profoundest lessons of regeneration and of the Divine life are told. Our Lord spoke in parables, "and without a parable spake he not unto them." The same may be said of God's speech to men in all ages; there is no other language in which God can speak to men; and this for the reason that no other language can bridge the gulf between the Divine thought of God, and the natural thought of men.

But the form of parable that is possible at anytime, must depend largely upon the quality of the men to whom the parable is given, upon the quality of the material which they can furnish from their knowledge and their experience of life for building at their end the basis on which the bridge shall rest. This is beautifully taught in the "Heavenly Arcana," in what is written about the tables of the commandments—the first tables, which Moses broke when he saw the people worshipping the golden calf, and the second tables, which at the Lord's command Moses cut out at the foot of the mountain, on which the Lord wrote the same words which were on the first tables which were broken. The stone tables represent the letter of the Word; the writing represents its spirit. The breaking of the first tables and the cutting out of others at the foot of the mountain, which were the work of Moses, not of Jehovah, is said to mean "that the sense of the letter of the Word would have been different if the Word had been written among other people, or if this people had not been such as it was." (Arcana Cœlestia, n. 10453.) The external of the Word, which is represented by the tables hewed by Moses, is said to include such things as the sacrifices and the cere-

monies of the Jewish worship; the establishing of worship only in Jerusalem; the permission to take many wives, and to put away their wives, things which except for the character of that people would not have entered into the external of the Word; laws which the Lord expressly referred to as given by Moses and not by Him. These with other things form the external of the Word which is signified by the two tables hewed by Moses. But "that still in that external the Divine internal is not changed, is signified by Jehovah writing upon these tables the same words which were upon the first tables." (*Ibid.*, n. 10603.) This incident of the tables is a wonderful lesson in regard to the giving of the Word, and the formation of its letter, from the knowledge and experience of men. It shows plainly the distinction between the Divine and the human in the Word, and the necessity for both, that the Word may be a bridge of connection between God and man, with a firm abutment at either end.

The marvel is that such crude and external ideas of worship as existed and were possible with that people; such false conceptions of morality as they had; such slight and superficial knowledge of nature; could have been used by the Lord as the basis of His Word with them—most of these, as we are told, were only appearances of truth, some of them were even falsities, which still were adapted by the Lord to serve as recipient vessels. Among such things are the thought that the Lord leads into temptation and troubles man's conscience, and that because He permits evil He is the cause of evil, and that He casts the evil into hell. The amazing mercy and condescension of the Lord, that He can bring down His Divine truth and love, till they rest in the minds of sinful men in such crude and unlovely forms! Yet if He did not do this, He could not speak to them at all; His Word could have no lodgement in their minds, to work their regeneration, to lift them up to clearer light, and to draw them nearer to Himself. The marvel, that the eternal laws governing the conjunction of human souls with God could come down till they found

expression in the slaying of animals at the altar; that the duty of resisting evil without compromise could come down into the command to destroy utterly one's natural enemies; that the heavenly duty of forgiveness and patience could be expressed in the command to establish cities of refuge; that the law of Christian love and service, the Golden Rule of heaven, could find expression in the law limiting retaliation to "eye for eye, tooth for tooth, hand for hand, foot for foot, burning for burning, wound for wound, stripe for stripe."

In another number of the "Arcana" upon the same subject we read: "Because the human rational is such, the mode of speaking in the Word is according to man's comprehension, and also according to his genius. Therefore it is that the internal sense of the Word is very different from its literal sense; which is very evident in the Word of the Old Testament, where most things were written according to the apprehension and genius of the people who then lived. On this account almost nothing is said concerning the life after death, salvation, and the internal man. For the Jewish and Israelitish people, with whom the church then was, were such that if these things had been disclosed, they would not only not have understood them, but would also have derided them." (Arcana Cœlestia, n. 2520.)

The amazing patience and condescension of the Lord that He could so veil the glory of His truth; that He could so bow the heavens and come down; that He could bring down His infinite truth and love till they rested in the minds of men in such crude, unlovely forms! This miracle and the miracle of the Lord's coming into the world are one. In speaking so, and in coming so, the Lord was willing that men shall misunderstand Him if they will, for in no other way could He bring His truth and His saving power to them in the depths of their need, and keep it forever present on the lowest plane of life. Yet we know that the Lord by His life in the world glorified His human nature; and in a true sense He at the same time glorified the

Word as He fulfilled it in His life. Some of the laws given to them of old time He abrogated as laws of conduct, and all of them He interpreted by His life of Divine love and service. Moses and Elias were with Him on the mountain of transfiguration, and shared His glory. It was of His providence that His Word was given and remains in a letter which is represented not by tables of stone given by Jehovah in the mountain, the work of His own hands, but by tables which were hewed out by Moses at the foot of the mountain. We should not wish to change the letter of the Word, but more and more we shall see the Lord in the letter and recognize His power and glory; we shall distinguish between the Divine and the human in revelation, and worship God.

WILLIAM L. WORCESTER.

## WHAT IS THE NEW CHURCH?

AMONG ourselves, we seldom have occasion to ask this question. We have lived in the atmosphere of the New Church, attended its services, heard its doctrines taught and preached from childhood. The answer to the question is in some form always before us, and we do not stop to reflect and to question. But in our relations with the outside world it is different. Here we often come in contact with people who are utter strangers to our spiritual home. More often, however, we live and move among people who have some acquaintance with it and some interest in it. So all of us have been called upon to answer such questions as: What is the New Church? What is your church? What church do you belong to? What church do you attend? We have all experienced a certain embarrassment when these questions come. The answers we give are felt to be inadequate; they usually excite more curiosity than they satisfy, and we find ourselves involved in a complicated discussion. There are many good reasons why these difficulties beset us. One is that the New Church is very little known in the world even by name. Another is that it is not a sect of the Christian Church in the ordinary sense, and so cannot be defined in denominational terms, nor can it be defined by reference to the founder, nor by any peculiar tenet. It is a wholly new and distinct form of Christianity. Then, too, it has various aspects. It is a *system of doctrine* of very profound and complicated character when taken in all its completeness. It is a form of life, that is spiritual life. It is a form of ecclesiastical organization. It is difficult if not impossible to get all these aspects into one statement, and it is always puzzling to know just where to begin. We may start out by saying the New Church is a new dispensation; the New Church is the New Jerusalem described in the Apocalypse; the New Church is the

second coming of the Lord; the New Church believes in the Divine Humanity of the Lord and in the spiritual sense of the Word. But we feel, and most of us have experienced, that none of these answers, nor all of them together are very enlightening and satisfying to strangers, and they do not really go very far in saying what we actually think of the New Church. What then shall we give as our answer?

Let us begin by saying:

The New Church is, spiritually speaking, the union of good and truth from the Lord.

This implies that the Lord, the Lord Jesus Christ, is acknowledged and looked to as the Ultimate and Prime Source of good and truth. In other words the New Church acknowledges the Lord Jesus Christ to be the one only God, and this acknowledgement distinguishes it from all other churches.

But truth and good from the Lord must in some way be communicated from Him to men, who constitute the church. This communication is made we believe primarily and directly through the Word, and therefore the Word is acknowledged to be Divine and holy above all other books. Its teachings are the message of God to men for their spiritual enlightenment and guidance. The New Church places peculiar emphasis on the spiritual character of the Bible as the Word of God, and sees in its spiritual meaning the ground of its holiness and its importance for actual life. As the Lord spoke by parable, so the Word of God is in form a parable from beginning to end. In other words what is spiritual has to be expressed in terms of every day speech that men of all grades and classes may be reached. The law in accordance with which this is done is the law of correspondence between the spiritual and the natural. It is the rigorous and consistent application of this law of correspondence in the understanding and interpretation of the Bible that distinguishes the New Church from other religious bodies. In fact, this recognition of a systematic spiritual sense in the Bible gives us one form of

definition of the New Church, viz: It is that form of doctrine and life that results from the understanding and application of the spiritual meaning of the Bible.

In a very familiar and obvious sense, there is a spiritual meaning in all life and in all language, and the correspondence between the spiritual and the natural has always been more or less fully recognized both in literature and in common life. Swedenborg was the first to see the full significance of this correspondence and to apply it systematically in the interpretation of the Sacred Scripture. The New Church accepts him as a specially prepared and enlightened teacher of this doctrine. The acceptance of Swedenborg's doctrine of correspondence and the application of it in the interpretation of the Bible, together with the acceptance of the whole body of his exegetical works as an authoritative exposition, constitutes another distinctive though not essential feature of the New Church.

In view of this doctrine of the spiritual meaning of the Bible and Swedenborg's mission as an authorized interpreter of this meaning we have another definition of the New Church. The New Church is the New Jerusalem of the Apocalypse and is specifically described therein. The spiritual meaning of this description is a revelation to the human race of what the New Church distinctively is and is to become, and the body of doctrine thence derived constitutes the distinctive faith of the New Church. In a larger sense however the spiritual meaning of the whole Bible is the proper source of New Church doctrine and belief. In other words, a man who believes that the Bible as a whole from beginning to end has a connected spiritual meaning and that this meaning has been systematically set forth authoritatively by Swedenborg by means of the law of correspondence is so far a New Churchman. All the fundamental and distinctive doctrines of the New Church are revealed and taught in this meaning. Those who hold these doctrines in common and who combine for common worship and mutual helpfulness constitute the distinctive body, social and ecclesiastic, of the New Church.

This is the organized New Church, the New-Church organization, the New Church on earth among men. Common belief, common worship, and combined efforts to coöperate in living the life of a common faith, lead to the formation of various groups, and to a combination and recombination of groups, giving in the end what we know as individual societies, associations, and the General Convention. This form of organization is not essential, but some such form of organization is, otherwise the element of mutual helpfulness would be left out and the existence of a spiritual communion would be lacking. Just so our common forms of worship, as now existing, are not essential, but some common form is, and the more orderly and the more widely extended the form the more it tends to promote spiritual community and strengthen the individual. It is necessary to recognize various grades and stages of membership in the New Church, but it seems necessary on the other hand to insist that there must in every case be at least a general acknowledgement of the distinctive doctrines or system of doctrine for which the New Church stands. It is possible, in fact it is frequently the case, that a certain person approves and accepts one or more of the doctrines of the church, but withholds belief in the system in its entirety, or rejects some of the specific doctrines. Then again there are various degrees of partial acceptance of certain doctrines and a favorable attitude in general towards the system or towards the church body. It is impossible in such cases to determine with adequate insight the precise degree of New Churchmanship, and it is both unnecessary and vain to try. Nevertheless it is practically convenient, if not necessary, to draw the line somewhere, and the only practicable test is that of confession of the common faith. Those who make this confession stand on the common ground of mutual understanding, and this furnishes the basis for coöperation. In this way the organized church takes form and grows.

Sometimes the distinction between the external and the internal church has been urged against the validity of mak-

ing this separation between those who share this common confession and those who do not, on the ground that the church is essentially a state of life and not a form of organization. It is maintained in accordance with this view that, the church being a state of life, the individual who lives this life is of the church and is the church in its least form. Granting the truth of this view in so far as it insists on the state of life as the essential aspect of the church, we will not pause to expose some of the fallacies that may lurk in it. It is only necessary to remark that there can be no internal church where there is no external. It is obvious that the truth and love that constitute an internal church and the outward life in which the truth and love are expressed must exist in the minds and outward activities of individual men. And in so far as the truth and love are expressed in coöperation and mutual helpfulness, these individuals must combine into a social group. This group then, whether simple or highly complicated, is the external church organization with its common love and common faith as its internal.

Some have emphasized the distinction between the universal church and the church specific, and urged this distinction against applying the name New Church exclusively to our ecclesiastical organization. They have insisted that "the New Church is not an ecclesiasticism." They have pointed out that Swedenborg's writings have been widely published and more or less widely read, especially by religious and intellectual leaders, and so, directly and indirectly, the truths contained in these writings have permeated the whole body of religious thought and the religious life of Christendom. Those who maintain this view go on to affirm that the new conditions brought about in this way constitute the larger and more real aspect of the New Church, and that the ecclesiastical organization which we call the New Church is comparatively unimportant and insignificant, in fact that it is a perversion of the real meaning of the New Church, and so the claim of our ecclesiastical body to the exclusive designation of New Church is re-

garded as arrogant and preposterous. It is not necessary to deny the truth contained in this view to maintain that the organized body of believers who hold in common the faith of the New Church as a doctrinal system, and who coöperate in a life according to this faith, do strictly speaking constitute the proper and specific New Church upon earth. A little reflection will make this perfectly plain. We have only to recur to our definitions and develop their implications. We have said that the New Church is the union of good and truth from the Lord. Certainly no fault can be found with the generality and comprehensiveness of this definition. In fact it is too general. For all good and truth are from the Lord, and all life is a union of good and truth. Without further qualification therefore this definition would not distinguish the New Church from any other religious body, or for that matter from any other form of human, or even animal life. In so far as the members of any religious body live in accordance with the principles of their religion, their life is a union of good and truth from the Lord, and this itself is one of the doctrines of the New Church. The distinction then between the New Church and other religious bodies has to be made in the *thought about the Lord*. The element of distinct acknowledgement must enter. In our definition a certain conception of the Lord is presupposed, namely, that the Lord is God, and the one only God. The insistence that He is the one only God makes the New-Church view distinctive, for no other religious body can consistently affirm this. But this doctrine, that the Lord is the one only God, has some very important implications both as to the nature of God and the nature of man, and especially as to the nature of the historical Jesus the Christ. Some of these implications we must develop in order to make the distinctiveness of the New Church appear more definitely.

In the first place it is implied that God is man, and man is a spiritual being. As a spiritual being, man has a three-fold constitution. He is a form of love, wisdom and their operation. So likewise God, whose nature is imaged in

man, is the Divine form of this trinity. When therefore it is said that the Lord is the one only God, it is implied that the Lord Jesus Christ of the Gospel story, ascended and glorified, now exists as the one only Divine form of love, wisdom and their operation. He is the one Divine person, the one object of worship, the Redeemer, Saviour, and Regenerator of men. He is the head of the church, and the source of its life and enlightenment. With these qualifications, our definition of the New Church as the union of good and truth from the Lord becomes distinctive, and the acceptance of the doctrines of the New Church as a system, implies the acceptance of these particulars.

If we ask for the source and authority of this doctrine, the answer is: It is the doctrine of the Bible, and especially the teaching of its spiritual meaning. Belief in God does not necessarily involve belief in the Bible as the one only book in which He is adequately revealed; but belief in the Lord as above defined does involve such belief. For the Lord gave his authority to the Bible and declared that it was about Himself. Belief in the Lord therefore involves belief in the Bible as the revelation of himself.. It is not in its belief in the Bible as the Word of God that the New Church is distinctive, but rather, as was before said, in its emphasis upon the spiritual meaning which is stored up in the Bible by means of the law of correspondence. From this spiritual meaning the distinctive doctrines of the New Church are derived. The general doctrines of Christianity, in so far as they are unperverted interpretations of the letter, stand in agreement and in the relation of a broad common ground with the teachings of the spiritual meaning. In other words these teachings give a deeper, more systematic interpretation of the common doctrines and so make them more intelligible and more directly applicable to actual life. It is true that no hard and fast line can be drawn at every point between the literal and the spiritual meaning. The New Church is not distinctive in its recognition of the spiritual meaning. The Christian church, from the beginning and in all its branches and sects, has had glimpses of

the spiritual meaning. It has also recognized the fact of correspondence and made use of that fact, but it has not made a clear distinction between the spiritual and the literal meaning; it has not conceived the spiritual meaning as a higher or inner degree of meaning and as a consistent and continuous body of truth expressed correspondentially in the letter. It has had no systematic doctrine as to the spiritual meaning, nor any systematic doctrine of correspondence. In just these two respects the New Church is distinctive. It has both. The New Church doctrine of the Bible then, in so far as it merely affirms the Bible to be the Word of God, is not distinctive. It becomes distinctive only when we develop some implications and particulars, and it is necessary to do this before we can recognize the distinctiveness.

In the first place, if the Bible is the Word of God it is so by virtue of the fact that it expresses the Divine will, purpose, and thought. In short, it must be the expression of the Divine truth. Now the Divine truth is truth about the Divine life, and about the communication of the Divine life to men. It follows that there must be various grades or degrees of truth in the Bible, and that this truth must be expressed in accordance with a Divine and universal law. Now if we mark the broad distinction between the spiritual and the natural so well exemplified in the Lord's parables, we can see that the spiritual meaning is related to the literal meaning as the spiritual in general is related to the natural. Furthermore, these meanings, to be an expression of the Divine truth, must have had a prior form of existence in the Divine mind before they were embodied in this form. So we have three degrees of truth, truth as it is in the Lord's thought, truth as formed in the spiritual ideas of men, and lastly, truth as expressed in the letter. According to this view, the Bible has two separate planes of meaning, and there is a constant relation between them. The doctrine of correspondences is a systematic body of truth about the relation of these two planes and how to pass from one to the other.

The New Church then as a body of doctrine and as a form of life is the outcome and the embodiment of the spiritual truth of the Bible interpreted by the law of correspondence. It is not sufficient therefore in answering the question, what is the New Church? to say that it believes in the Bible as the Word of God, nor even that it believes in the spiritual meaning, and the law of correspondence. The New Church conception of the Bible, of its spiritual meaning, and of correspondence, is peculiar in that it is systematic and includes certain implications as to the nature of the relation between the Lord and His Word and certain definite consequences of the application of the law of correspondences in the embodiment and the interpretation of the spiritual meaning. In other words the system of spiritual truth contained within the letter, and the doctrine of correspondences as a system, involve particulars which are necessary to give the New Church its distinctiveness. The New Church is a form of faith and life which not only accepts these doctrines as a whole and in general, but which develops and embodies these particulars. For instance, the spiritual meaning enables us to see that the Bible has a direct and vital relation with the Lord and not merely a documentary relation. Shakespeare's works are in a sense an inspired book. They have a spiritual meaning of a certain kind and they embody the law of correspondence, but the reader of Shakespeare, although he is brought in a measure into the sphere of his past thought, is not presumably brought into direct and vital relation with his living, present thought, or into his actual spiritual presence and personal influence. With the Bible according to the New-Church view, it is otherwise. The reader is brought into the actual living thought of the Lord, into his personal presence, so that the Lord's living present thought takes form in his mind; he sees in the Lord's present light and is moved with the Lord's present inflowing love. Of course more or less of this takes place with any reader, but in the New Church, the experience should be more complete because more completely self-conscious, for in the New Church

it is understood in the light of doctrine. Again, the stories and histories of the Bible—the story of Eden, the story of the Flood, the history of David, etc.—have for the New Church a definite spiritual meaning and every incident and every personage mentioned conveys its own peculiar spiritual lesson, refers to a definite spiritual situation. The sun represents love, good or evil, the moon faith, true or false, water practical truth of life, etc. Once accept the doctrine of correspondences, and their meanings become fixed and constant. It is the consistent body of such interpretations that the New Church stands for, the details of which are all involved in the acceptance of the general doctrines. It is the system and its details that characterize and distinguish the New Church and of which the New Church is the distinctive embodiment.

There is one momentous implication of this system of spiritual interpretation which we must now consider and which constitutes another distinctive feature of the New Church, viz. the Second Coming of the Lord. The doctrine is that the Lord is making his second coming by revealing to men the spiritual meaning of his Word by means of the doctrines above mentioned. The Second Coming of the Lord is but another name for the entrance of the spiritual truth of the Bible into the minds and lives of men. But here again we must observe that the entrance of this truth, or the Second Coming of the Lord, is conditioned by man's acknowledgement and the state of his enlightenment.

The acceptance of the doctrinal system of the New Jerusalem is a prerequisite for the Second Coming of the Lord in the distinctive New-Church sense, that is, in the full measure. There is no doubt of a gradual and partial second coming in the general state of religious enlightenment of the present day, and we should be hospitable to all forms, even the most partial, of recognition and appropriation of the details of our doctrinal system whether direct or indirect. Moreover, we should be prepared to recognize cases of enlightenment through channels provided by

individual receptivity quite apart from the direct agency of our church body or our system of doctrine. This however does not in the least degree lessen our duty of allegiance to our body or our doctrines, but rather should give us a clearer and stronger motive to extend both.

From the point of view which we now occupy our answer to the question, what is the New Church? may be given in the single statement: The New Church is the union of good and truth from the Lord as He has revealed Himself in the spiritual sense of the Bible. From this spiritual sense is derived on the one hand the system of doctrine called the New Jerusalem, and on the other the organized life and body of the church called the Bride, the Lamb's Wife.

We have said that the New Church is that form of organized human life in which the Lord in his second coming is received, and that the Second Coming of the Lord is what brings the New Church into existence. This seems like reasoning in a circle. This circle also appears in the statements that all doctrine is drawn from the letter of the Bible, and that the letter of the Bible is interpreted by means of doctrine. This situation calls for reference to Swedenborg and the part he plays in the establishment of the New Jerusalem. According to Swedenborg's own statement, he was taught the doctrines of the New Church by the Lord alone as he read the Word. In this way, by special and direct enlightenment, he was given by the Lord himself to see the spiritual meaning in the letter as he read and studied. His unique experience as an occupant of both worlds, the spiritual and the natural, at the same time, enabled him to see the relations between natural and spiritual things in a clearer and more complete way than was ever done before by man. The doctrine which he was thus taught and the spiritual meaning which was laid open to his view, he recorded in his books, and they furnish us a means of discovering the spiritual meaning for ourselves. In other words, the New Jerusalem first took form in Swedenborg's mind and writings, and the New Church has been formed and developed by making use of his work. In the first instance,

then, the New Church took form in the mind of a specially prepared and enlightened man. He was taught the doctrines in a direct and in some respects a unique way. For us therefore the system of doctrine already exists and we make use of it as a means of receiving the Lord in his second coming. In this way our problem is solved.

This, roughly sketched, is the answer which is to be given to the question, what is the New Church? It involves the recognition and statement of a few fundamental religious doctrines which when taken in their proper sense together with their implications are new and distinctive.

To sum up, The New Church is the body of doctrine and the form of life taught in the spiritual meaning of the Bible. The Bible is the Word of God by virtue of the fact that it is the expression in human language of the Divine Truth by means of the correspondence between the spiritual and the natural. In accordance with this structure it has a spiritual meaning within the letter which can be discovered by applying the law of correspondences. The supreme doctrine, the spiritual meaning, of the Bible is that the Lord in his glorified humanity is the one only God, the Divine Man, the personal embodiment of the Love, Wisdom and Power which create and rule the universe, the personal life which inspires, enlightens, uplifts, saves and regenerates men, the supreme object of love and worship. In unfolding the spiritual meaning of his Word, the Lord has made his second advent. Swedenborg's mission was to serve the Lord in making known the spiritual meaning of the Bible, and in formulating the doctrines of the New Jerusalem. Finally, the New Church on earth is the body of believers who hold the above faith and its particulars in common, and who unite in the effort to live the common faith.

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## THE SPIRITUAL LIFE IN BAPTISM.\*

FROM the beginning the Christian Church has insisted upon the sanctity and the observance of two rites, the Sacraments of Baptism and the Holy Supper. This article treats of the former. The New Church prizes this sacrament more highly than any other religious body, because in this church it has a more definite and distinctive meaning and use. To other bodies it is chiefly a memorial and sign of regeneration, but the significance of these terms is vague and is not given a tangible reality. As one travels about engaged in preaching the Gospel, it becomes very evident that Baptism at the present day is greatly neglected, and this I believe leads in large measure to a corresponding neglect and decrepitude in religious life and interest.

Baptism as a rite is distinctively Christian. Instituted by John the Baptist, it was continued by the Lord's disciples, by Paul, and by the priesthood of the Church. It is not however until it comes into touch with the New Church that a definite and positive explanation of its nature is given, which explanation, while not containing anything new, does open up to view its spiritual significance long hidden from the world owing to the burying of spiritual life and truth by the Church.

Baptism, while suggested by various customs existing before the Incarnation, does not take its place as a distinctive institution until the ministry of John. It is from the Jewish Church that Baptism derives its special connection with pre-Christian times. That church was a mere mass of practices, forms, ceremonies, ordinances, and customs which were most precious to the Jews, whose national characteristics were such that their lives were bound up in these things, but which would only hinder the progress of

\*Arcana Cœlestia, n. 2299. Heaven and Hell, n. 335. Spiritual Diary, n. 234. Conjugial Love, n. 412.

the modern world, and today would be decidedly out of place. While most of these ancient forms and customs have now passed out of practice, and many laws that were then enforced are now practically repealed, their spiritual relation to life still remains, so that their spiritual meaning, effect, and importance are transferred to and embodied in the Christian rite of Baptism. This is a case of putting the old wine into new bottles. An exhaustive study of Baptism would therefore require a consideration of all the various representatives that have given place to this rite. We are told in writings of the Church (*Arcana Cœlestia* n. 2702, *True Christian Religion* n. 669), that the representative meaning of the following is embodied in our present sacrament: circumcision, the laver and the brazen sea, the altar of incense, the bread of faces, the candlestick, the water sprinkled upon Levites (*Numbers* viii, 7), the water of separation (*Ibid.* xix, 2-19), the water from the rock (*Exodus* xvii, 1-8), the bitter waters of Marah (*Ibid.*, xv, 23-25), the washing of hands and garments, and the cleansing of the Midianite spoils by water (*Numbers* xxxi, 19-25). It is interesting to note in passing that some miracles are thus involved in Baptism, there doubtless taking on the relation of signs following rather than of signs persuading belief; and indeed, is not the spiritual baptism a spiritual miracle?

The chief reason for regarding this rite as a sacrament is that Baptism is correspondential, and that the correspondences of the above mentioned ceremonial acts and things are involved in it. Without correspondence it would not be a sacrament. With the transfer of the correspondences belonging to the acts and things above mentioned, it becomes charged with spiritual relations of great and momentous importance. For correspondence is the relation of cause and effect; if the cause is present it produces its effect in this world—Baptism; if the effect is present it forms a continual basis in which the cause may operate and this cause being correspondential is spiritual and operates in the spiritual life, there to produce certain situations in life, certain changes in character—vital relations with heaven and the Lord.

First let us mention the things that Baptism does not do. It does not give faith, entrance to heaven, salvation or regeneration (*Heaven and Hell* n. 329), nor has it any contribution whatever to make towards salvation unless certain other necessary elements are present in the spiritual life. (*Apocalypse Explained* n. 475.) Plainly these statements of doctrine treat of the mere external act, considered apart from those spiritual relations without which the act would have no meaning and would be invalid, becoming nothing but magic, divination, and idolatry. (*True Christian Religion* n. 669.) But when taken in connection with appropriate spiritual situations the act has a vital bearing on Christian character and evolution. Under these conditions, Baptism is valid, effective, and useful. The person concerned needs to be in touch with the truths of the Church and in a life according to them or to be brought up in that life by others. It is only in this sense that the performance of the act is entitled to be called Baptism.

The act therefore now passes over into that stage where it exists from spiritual truths and internal connections as a representative and correspondential act. Because correspondence explains the relations of things spiritual and natural, the rite now becomes a sign of those internal truths of the Church which must be taken along with the rite to give it validity. The truths of which the rite is the sign are these: purification from evils and falsities (*True Christian Religion* n. 144), spiritual washing from sins or baptism which introduces a man into heaven (*Doctrine of the Lord* n. 18), initiation into the church (*Arcana Cœlestia* n. 2299), and her knowledges from the Word concerning the Lord, His coming, and salvation (*Apocalypse Explained* n. 475). It is also a memorial that man is to be regenerated and so signifies regeneration itself. (*Arcana Cœlestia* n. 10386.) As a sign of these spiritual realities Baptism proclaims them, for the simple reason that it is set in the very system and structure of the Christian religion by the Lord, just as a gem is set in the sceptre of a king and helps to make it a sceptre. The rite testifies of the very things that constitute

the Christian religion and is itself an integral part of it. It becomes pre-eminently to all people a sign of Christian fellowship and participation in those essential truths of the Church, the power of the Lord in life, and His salvation.

It follows that Baptism is for those who are within the Church, because they have (from the Word) these means of regeneration, and are distinguished from all others in the whole world by their possession of them. The still more advanced statement is not surprising that Baptism saves those who by effective use of those truths, are being spiritually washed or regenerated. Baptism now has a saving power for those who are regenerating members of the Church through the power of the Word, by virtue of their profession and practice of the Christian religion. The rite for them is united and married to those spiritual verities from which it takes its correspondence and is a sacrament. Salvation regarded in this light is conditional upon the living of the truths connected with the rite, and thus connected becomes a requisite element in Christian development. In fact, salvation and the heavenly life and all religious realities are conditional, for they are void if man ignores them, actual if he observes them.

Baptism as possessing a saving power now becomes a positive institution, and we find further statements as to what it is. It is a sacrament of repentance (*Apocalypse Revealed* n. 531), a memorial (*Ibid.* 776), a sign for heaven to behold (*Ibid.* 778). It is introduction into heaven and a gate to eternal life. It is introduction into the teaching of the church from the Word. (*True Christian Religion* n. 721) Again the washing of Baptism is nothing else than spiritual washing, which is regeneration (*Arcana Cœlestia* n. 10386), which means that Baptism taken in all its relations and bearings constitutes regeneration. This does not contradict the previous statement that Baptism is not regeneration, for in that instance it is the mere external performance which is treated of. (*Apocalypse Explained* n. 236.)

Baptism, besides working towards salvation, at the same time testifies and certifies the salvation of all who believe

and live according to the Lord's commandments in the Word. We may even say that Baptism is the certificate of salvation, a contract between the Lord and man, dependent upon both for its fulfillment. This certifying of salvation by the rite of Baptism exists, as already said, with Christians, and is described by Swedenborg under the significant heading, "For every nation the Lord provides a universal means of salvation," which is Baptism, and which means exists in all fullness with Christians. Baptism, then, for those of the Christian religion, is the universal means of salvation.

When all these requirements are met and the life actually embodies the principles of the Christian faith, the sacrament,—for it is a sacrament now,—is a sign to the angels as well as to men and reaches the gate of heaven. It is like a seed; the rite with its connections has grown, the spiritual situations have enlarged, and the man may enter within the gate and continue to eternity to develop the spiritual life begun on earth.

Let us now sum up the various points we have made. Baptism as a mere external act has no value. As a sign of the Christian religion it testifies to participation therein. It saves when the Christian life is actual, for then it is part of that life, and it gives entrance to heaven where the heavenly character in regeneration is completely realized. This order of stating the different phases of the subject, is the same as that followed by Swedenborg in the "True Christian Religion," Chapter twelve, sections ii, iv-vi. Section ii (n. 673) teaches that the mere rite is worthless. Section iv, explaining the first use, introduction into the Church, shows that as a spiritual sign it gives Christian fellowship. Section v declares that the second use, acknowledgement of the Lord, is what gives salvation because Christ's name is interwoven in the life with golden threads (True Christian Religion n. 683.) ; and section vi treats of regeneration, which all along is the end in view. These consequences follow from fulfilling the spiritual implications involved in the rite. (True Christian Religion n. 685.) How is it that they

come to be there? How can Baptism signify such things and even correspond to those sacred things within it?

The explanation is found in the simple fact that Baptism is of the Lord's own instituting. For this reason He is present in it with the whole of His Divine Humanity from which regeneration and salvation proceed to men. The rite being His institution, is a Divine institution, just as is the case with the Church and her priesthood, with marriage and the Holy Supper. As said above, it is a seed in which the Lord's life is present ready to spring forth as soon as it is planted in man's life, there to develop all its several possibilities to their fulfillment. Once forms have been produced, or organs adapted, the uses proceed from them and these uses contain good and truth ready to be realized. (*Arcana Cœlestia* n. 4223.) Taken in this way Baptism saves, because the Lord who is Salvation is present in it with all His saving power.

Shall we assert then, that he who has not been baptized is not saved? As a matter of fact, everyone who enters heaven comes into these spiritual relations and by so doing, is spiritually baptized and also saved, for "all . . . are by baptism inserted among Christians in the spiritual world." (*True Christian Religion* n. 678.) Another fact is that infants who have not received Baptism here are baptized in effect in heaven. (*Ibid.* n. 677.) Moreover, as this spiritual sign is necessary because instituted by the Lord, and designates its owner as a Christian, every Christian must be, and is, baptized to avoid spiritual confusion and obliteration of order. (*Ibid.* n. 678, 679.) Consequently as all infants if not baptized here are in effect baptized there, and all others must have the Christian sign, so with all in the Christian heavens the meaning of baptism is realized, and in this sense we may say that Baptism is necessary to salvation because as a matter of fact it is always in effect administered. If it were not so disorder would ensue, which of course is not allowed; and it is always thus performed because of the spiritual relations involved, which all persons in the process of regeneration necessarily experience.

All this however is dependent upon the man's attitude, whether he is doing his part,—assuming that he has faith in the teachings of the Lord, of which the rite is the sign and symbol. If he is doing his part he will reach the end and final use of Baptism, which is regeneration. If he is not, nothing avails, for where the Lord is rejected, there is nothing left on which His mercy can operate.

What then is the relation of Baptism to little children? for they have no faith and do not practice these Christian virtues. The case is this: Baptism is a sign, as we have seen, to the angels. It has always been a sign to them, whether we perceive it or not. Children of course cannot enter into Baptism by acknowledging the truths of which the rite is the sign, but just because the rite is such a sign they should be baptized. They experience an "insertion into the spiritual world," becoming the wards of the angels. This introduction into angelic company carries them over, with all necessary safeguards, to the time when they can enter with their own minds into the mysteries of faith and pursue the work themselves, realizing and fulfilling the promises made for them by those who acted as their sponsors. The angelic instruction that is given them becomes their own and they actually embody individually the spiritual requirements. The inability of children to take upon themselves these important obligations is itself an argument for their baptism, so that as soon as possible angelic influences may surround them, remains be implanted, and their embryonic spiritual lives be rightly nourished from the beginning. This the children cannot do; they cannot say that they wish to be Christians, but we know that is what they ought to be, and we surely would not want them to be anything else. This is the angels' work and our bounden duty. If we refuse to do our duty we violate the Lord's commands saying, "Baptize all nations"—including children, and, "Suffer the little children to come unto Me," which He most especially urged. If we omit the little ones, we are spiritual lawbreakers and must be held responsible, either individually or in general, for the decadence

of religion and neglect of this holy sacrament by those who, growing up, suffer for the loss of their birthright—all because the dogmatic Jacob came and stole it from them and appropriated it to himself.

Baptism as the universal Christian means of salvation does not, as some religious bodies declare, demand compulsory rebaptism. If this ground were taken, it would imply that outside of some specific body baptism is invalid. Unless this body could prove a positive and infallible connection in some way with the first instances of the administration of the sacrament, the baptisms performed by John, the disciples, and Paul would all become invalid by such a claim. But Baptism, while efficient universally, is efficient individually. While it is real to some extent in all religious bodies, it is not always complete because the persons concerned may not have been good recipients of it. There are doubtless instances where, the person being quite ignorant of its meaning, or perhaps insane, the baptism would be a mere valueless act. In the case of those who receive only a little of its message, it is a baptism "in abeyance" till the man realizing its significance makes its value actual. Under these conditions it may be advisable to repeat the act, that he may realize actually the spiritual implications which in the former case had little meaning because his attitude was not responsive and did not obtain for him the full effect of the Sacrament. This would not be true of a child if in maturing he fulfilled the vows that were taken for him vicariously; but if he should not carry them out, he would then come into the same ineffective relation. It is because of this lack of appreciation of the sacraments that "it has pleased the Lord to reveal the spiritual sense of the Word, to enable the New Church to enter into the real use and benefit of Baptism and the Holy Supper; and this is done when men with the eyes of the spirit, that is, with the understanding, see the holiness that is concealed within them and apply it to themselves by the means which the Lord has taught in His Word." (True Christian Religion n. 700.)

The spiritual significance of Baptism is that stated in the

foregoing considerations, which should be carried into effect that we may enter into its real use and benefit. This is really the reason for a second baptism of those first baptized by John. (Acts xix, 5.) They were external men and did not realize anything of its spirit, but later, when they did feel the power of the Christ in their lives, they were baptized into something of that internal nature which must be in the rite to make it effective. (True Christian Religion n. 690.) Then it was that the repetition of the act in company with the spiritual situations did not count in heaven as if they were actually purified (Apocalypse Explained n. 724), but became truly representative of the life that enabled them to become Christians. It became actual, and not simply representative of something that was not existent. It was because the Lord "fulfilled all righteousness" at the Jordan that there was no occasion for repetition in His case, for He met as no other could meet all the spiritual requirements. The baptism of John was valid and effective for the Lord, ineffective for those whom John baptized, because of their shortcomings; effective when repeated with its proper spiritual surroundings. The term "re-baptism" is not perhaps the best word to use in this connection, for it has a rather unpleasant savour. It might be better to use simply "repetition."

Baptism, because it is the universal Christian means of salvation, inserts us into heaven, not in a specific way but in a universal way. As the spiritual side of it works out in life the man or the child develops an individuality which inserts him particularly into some specific group. This results from the "quality of Christianity in him or outside of him" (True Christian Religion, n. 680.) that grows from the sacrament as he realizes in himself the life that it brings to him and as he draws to himself spirits who make one with his faith and life (*Ibid.* n. 677). This is especially true of children for their baptism inserts them among the celestial angels, and it is only later that they come into their own specific societies through the life they have thus developed.

In conclusion. Just where do the holiness and efficacy of Baptism lie? in the rite, in the priest, in what is said at the time, in the water, or in the use it performs? Its holiness and efficacy lie in the fact that the Lord instituted it Himself as the sign of His presence in the man of the Church who comes to Him in faith and life. Because He establishes it, as much now as in past times, He is in it, His salvation is in it, His life is in it, His heaven is in it, and all these things lying concealed within it only wait for the man to bring them out effectively. The three uses all lead to this end. The first use of introduction is a real use only because it leads to the Lord and grows into belief in Him, and this is only useful when it ends in salvation. (*True Christian Religion*, n. 685.) So the rite of Baptism is necessary to salvation, because salvation is implanted therein and grows out of it, and because these uses are "necessaries of life." This is the meaning of that expressive and suggestive phrase "The spiritual life in Baptism." That life is actually in it in embryo. Of all these internal realities Baptism is the sign, and with each reality there is a correspondent relation. The words of our Lord are indeed literally true, "He that believeth and is baptized shall be saved," (*Mark* xvi, 16)—and indeed is saved.

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## THE AGE IN WHICH WE LIVE.

To know one's self was considered by the ancients a proof of the highest wisdom. And so indeed it is. Without self-knowledge no progress can be made in the regenerating life, there can be no true development of character. Starting from the primary teaching that the Divine purpose in creation is a formation of a heaven of angels from the human race, the new Churchman has a definite aim set before him at the outset. His one all-controlling duty is to co-operate with the Lord in that purpose. It is for him, with the help which the Lord continually imparts, so to live in this world, that he may become an angel himself. But he cannot enter upon this work without understanding his own nature and needs. And the very first thing he learns, if he sees truly, is that he is inclined to many and various evils. These must be searched out, repented of, and put away. Thus the life which leads to heaven must begin with self-examination. Knowing ourselves is the preliminary step toward becoming what the Creator, in His infinite goodness and wisdom, designed us to be.

Closely connected with this self-knowledge is a knowledge of the times in which we live; for they furnish our distinctive environment. In a very intelligible sense they form a part of us. We cannot be separated from them, or rise wholly superior to the influences which they exert. It is not easy to see them just as they are, any more than it is easy to view ourselves clearly and impartially. The wise men of any age are those least subject to the mere passing breezes of popular opinion, those whose effort is to stand always on the rock of truth, which never changes. But few are they who reach this high vantage ground, however hard they may strive after it. We all recognize the difficulties, and have to confess our weakness in overcoming them. Too often we are swept along by the prevailing

current, without giving any thought to the nature of it. Too often we are blind to its objectionable features, because we accept them as a matter of course, which it is useless to try to modify. There is an old saying, "Too much familiarity breeds contempt." With equal truth it may be added, Too much familiarity breeds indifference. So the real nature of the times in which we live is frequently hidden from us. We fail to stand as it were apart, and judge them truly, as if they belonged to another age of the world.

And yet, surely, this is something which we ought now and then to attempt. It is important that we should from time to time take note of the influences which are daily brought to bear upon us, in order that we may discriminate between what is wholesome and what is pernicious among them. This really forms part, as has been intimated, of our own work of self-examination; for it is only so far as the evils to which we are exposed are recognized, that they can be guarded against and avoided.

Let us also call to mind that we are not without instruction from the writings of the Church as to the present age of the world. Had we not such instruction, our own inferences might be of doubtful value. But we know, to begin with, that we are living in a distinctly new era of human history. The first dispensation of Christianity has passed away and a new one is commencing. The second coming of the Lord, so long foretold, has taken place. New truth is revealed from heaven, a fresh impetus is given to the affairs of men, and there is a fulfilment of the prophecy, "Behold, I make all things new." The signs of this great change are everywhere visible around us. No one, not even the most superficial observer, can be unmindful of it. Though its spiritual causes may be mostly unperceived, the fact itself cannot be denied, that from some unseen source the thoughts of men are stirred to unwonted activity. In every field of endeavor new interests, new ideas, and new energy, are displayed.

One element in the situation is confusion and conflict.

Such radical changes cannot be effected without spiritual upheavals. The transition from one dispensation to another cannot be quickly or suddenly made. Accordingly the Scripture passages in which the second coming of the Lord is treated of have much to say about disturbed conditions, which are presented under such figures as wars and commotions, famines, pestilences and earthquakes, the darkening of the sun and moon, and the falling of the stars. Likewise the dawning of a new day is always gradual, because the old night vanishes but slowly. The evils and falsities of a former church must be removed, before the reviving influence of a succeeding church gains full sway. This we all know to be true in our own individual experience. Good cannot enter and take possession of the heart, until the opposing evils are cast out. Similar is the case with the world at large. The giving-up of fixed opinions and habits requires time, and is often a painful process. So far as they are given up, a feeling of vastation or emptiness follows, until they are replaced by others. It is a groping and unsettled state, in which the old landmarks are lost, and the new ones not yet found. No great discernment is needed in order to see that these conditions are characteristic of the present age. It is a period of prevailing restlessness. There is uncertainty and constant change in all fields of thought and action. The endless war between old and new, conservative and radical was never more fiercely waged. Not only religious beliefs, but moral, social, political and economical matters of every kind, are subjected to fresh scrutiny, and undergoing transformation. But let us turn to something, definitely revealed, which throws light on the situation.

The twelfth chapter of the Apocalypse treats of the New Church and its doctrine. The Church is presented under the type of a woman clothed with the sun, and the doctrine as a man-child whom she brings forth. The reception given to this doctrine at its birth is pictured by a great red dragon standing ready to devour it. The dragon himself represents the false beliefs and teachings with which the

new truth has to contend. So powerful are they, that the child is said to be "caught up to God and to his throne"; which means Divine protection from a hostile world. The woman also flees into the wilderness, where she has a place prepared for her; which likewise signifies protection from adverse influences.

All this, we are taught, is a prophecy concerning the age in which we live. It tells of the beginnings of the New Christian church or dispensition among men. Some features of the description are so suggestive, that we may usefully dwell a few minutes upon them. Thus the statement that the Church in its early stages will be in the wilderness, is full of meaning. What is this wilderness, in a spiritual sense, but a desert state, a lonely state,—a state devoid of sympathy and appreciation? In agreement with this thought we read in the "Apocalypse Revealed" as follows:

The woman fled into the wilderness, signifies the church which is the New Jerusalem, at first among a few. By the woman the New Church is signified, and by the wilderness is signified where there are no longer any truths. That the church is at first among a few is meant, because this follows, "Where she hath a place prepared by God, that they may nourish her there a thousand two hundred and sixty days, by which is signified its state at that time, that, meanwhile, preparation may be made for it among many, until it grows to its appointed state." (Apocalypse Revealed, n. 546.)

It is of the Lord's Divine Providence that the church should at first be among a few, and should increase gradually among many, because the falsities of the former church must first be removed, as truths cannot previously be received; for the truths which are received and implanted before falsities are removed, do not remain, and are also dissipated by the dragonists. The case was the same with the Christian Church, that it increased gradually from few to many. Another reason is that a new heaven must first be formed, which will make one with the church on earth; on which account we read that he saw a new heaven and a new earth, and the holy Jerusalem coming down from

God out of heaven. It is certain that a new church, which is the New Jerusalem, will exist, because it is foretold in the Apocalypse; and it is also true that the falsities of the former church must be removed; for these are treated of in the Apocalypse, as far as to the twentieth chapter. (*Ibid.*, n. 547.)

Thus we see that the establishment of the New Church on earth is dependent on conditions existing in both worlds. It is necessarily a slow process, we do not know how slow; for who can estimate the length of time required for the mighty changes which it involves? But, however moderate the growth may be, it is absolutely sure. With what quiet confidence does Swedenborg speak of it in the passage which was last quoted! "It is certain that a new church which is the New Jerusalem, will exist, because it is foretold in the Apocalypse; and it is also true that the falsities of the former church must be removed." No one to whom the heavenly doctrines are dear, and who understands their distinctive character, can question for an instant the truth of these assertions. The new revelation, in the minds of all who accept it, is itself a proof of the coming of a church which will live in its light, and be guided by its teachings. With Swedenborg, they see it foretold in the Apocalypse, and know in their hearts that it can never gain a firm and permanent footing, except so far as the former things are passed away.

When, however, we think of the Church, something more should be in our minds, than a mere ecclesiastical organization. Not in any such narrow sense should we picture to ourselves the New Jerusalem. But that holy city represents a new state of faith and life on the earth. What this state is, we find beautifully summed up in a verse of the prophecy itself, "Behold, the tabernacle of God is with men, and he will dwell with them, and they shall be his people, and God himself shall be with them, their God." The vital and central influence in the changed order of things is the Lord, who, at His coming, establishes a new relationship with His human family. By means of the fresh reve-

lation which He makes, of Himself and of His Word, He will be better known and more intelligently worshipped. But from this center proceeds a sphere which reaches the ends of the world, and affects every department of man's activity. According to Swedenborg,—

The Lord's Church is universal, and with all who acknowledge the Divine and live in charity. . . . . The universal church on earth is in the Lord's sight as one man, just as heaven is; but the church where the Word is, and where by means of it the Lord is known, is as the heart and lungs in that man. That all the viscera and members of the whole body draw life from the heart and lungs by various derivations, is known; so likewise live those of the human race who are out of the church where the Word is, and constitute the members of that man. (Heaven and Hell, n. 308.)

Another statement is the following:

“The Lord's church is everywhere in the entire world; although specifically it is where the Lord is acknowledged, and where the Word is.” (Heavenly Doctrine, n. 244.)

This larger definition of the Church ought surely to be kept in mind whenever the subject is under consideration. Unless we always remember it, our view of existing conditions will be sadly inadequate. If we forget that “the church of the Lord is with all in the whole world who live in good according to their religion,”—again quoting Swedenborg's language (*Ibid.*, n. 246),—we can form no true conception of passing events, or of their real significance. The boundaries of this universal church are indeed invisible to us. It is seen in its fulness by the Lord alone. But our knowledge of its existence should be a great source of inspiration; for it plainly shows that, although the Church, as a whole, may be in the wilderness, there are unseen forces, not only in heaven, but in this world, working for her strengthening and upbuilding. Directly or indirectly, consciously or unconsciously, all who lead good lives, according to their religion, everywhere, throughout the earth, co-operate in lessening the power of old falsities, and hastening the coming of the Lord's kingdom.

We are often taught that the New Church, signified by the New Jerusalem in the Apocalypse, is to be the final, crowning, period in the development of human life upon the earth. Nothing else, truly, could be inferred from the glorious description which is given us of the Holy City. Of similar import is a prophecy from the book of Daniel, which stands, together with the other, on the title-page of the "True Christian Religion." "I saw in the night visions, and, behold, one like the Son of man came with the clouds of heaven. And there was given him dominion, and glory, and a kingdom; and all people, nations, and languages shall serve him: his dominion is an everlasting dominion which shall not pass away, and his kingdom that which shall not be destroyed." These predictions are of themselves enough to show that the New Dispensation can be established in no short period of time. They are so far reaching, that in the nature of things they cannot be speedily fulfilled. Though truth descend from heaven, its reception by men, and its spread throughout the world must needs be gradual. All previous churches of the Lord have been greatly circumscribed, and limited in the field of their operations. The Jewish Church included only the descendants of a single family. The Christian Church had its principal seat in Europe, and in countries colonized therefrom. But the church of the future, seen in prophetic vision, will, as we are led to believe, comprise, even in its outward form, "all peoples, nations and tongues."

As to the order and method of development in the coming church, our doctrines are not silent. Perhaps the most definite statement which they make is the following: "The New Church in its beginning will be external." This is said in explanation of the parable of the fig-tree, concerning which we read:

This parable or similitude was related because the fig-tree signifies an external church, and trees signify knowledges of truth and good. The kingdom of God, which then is near, signifies a new church of the Lord; for at the time of a final judgment the old church perishes, and a new begins. (Apocalypse Explained, n. 403.)

Similar instruction is to be found in other passages, and is certainly most significant. To say that the New Church in its beginning will be external is the same as saying that its earliest stages will be its lowest ones; for in spiritual matters that is lowest which is outmost. This also implies that its growth will be from below upwards. First must be laid as it were the foundation, and afterwards the superstructure. Or, to use another comparison, first must come the roots, and later the trunk and branches. A church which is eventually to include the whole world must be brought together on the plane of natural fellowship, before it can be welded into a spiritual brotherhood.

And is not this a process which manifestly is going on at the present day? The ends of the earth are constantly drawing nearer together. All peoples and nations are daily becoming better acquainted with each other. The long-standing barriers between them are breaking down. They are assimilating each other's ideas, and forming common interests. No prophetic vision is needed in order to see that the basis of a new and broader civilization is being laid, from which, in the coming time, no portion of the human race will be excluded. This, we have a right to assume, will be the final outcome. If we believe that the Divine predictions are to be fulfilled, we cannot surely doubt that these results, and numberless more, are involved in them, being implied in the expression, "Crown of all the churches."

But our special subject is, "The Age in Which We Live." From the general view-point which we occupy, it is indeed full of hope and promise. But, as we have already seen, a closer scrutiny brings to light much that is disquieting, much that we wish were otherwise, much that seems to savor more of old falsities than of new truths, much that makes us feel that self-love and love of the world are as strong in the lives of men as ever. If the state of the church at this day is external, so in a pre-eminent degree is the age itself external. Yea, externalism may be truly pronounced its dominant feature. It is, *par excellence*, the age of great achievements on the natural plane of life.

It is the age of steam-engines, telephones and automobiles, of mechanical inventions and appliances, of anesthetics and surgery, of athletic games, and bodily strength and prowess. It is an age in which physical science holds the foremost place, in which the earth is made to yield its products in unprecedented abundance for the service of man, and which gives unwonted scope to the acquisition of worldly riches. On these outside things the general attention is concentrated. Little time or thought is devoted to higher matters. The latter seem remote, unreal and devoid of interest because of the prevalent absorption in material pleasures and possessions. Who does not feel the tremendous pressure of this atmosphere around him? Who can be unmindful of its dangers, and of his need of protection from it?

To take a single instance, if any one wishes evidence of the gross externalism of the present age, he has only to look into the newspapers, and see what kind of matter they daily place before their readers. Their business is, of course, to provide a truthful record of current events, arranged according to their relative value and importance. In so doing, they are supposed to be guided by the demands of the public. If such is the case, then one principal demand is the details of crime and immorality, presented in the most conspicuous manner, with great headlines, and frequently with portraits of the criminals. But what a comment it is on the state of society, to assume that these are the things it craves! To print them at all is bad enough; to force them into prominence is to sow the seeds of corruption throughout an entire community.

It is not necessary, however, to emphasize these flagrant examples, in order to show that the thoughts of men today, as reflected not only in journalism, but everywhere else, tend to gravitate unduly to what is external, superficial, and "of the earth, earthy." The chief enemy which they have to fight is the spirit of materialism and worldliness. This is the natural product of the new age in its perverted form, in its first developments. The good which is peculiar to

any period is liable to abuse, and opens the way to corresponding evils. We should expect that an epoch marked by great material progress would be subject to the perils pertaining to that condition. Improvement in outward circumstances can hardly fail to excite the temptation to love outward things too well. At all events, such are the dangers which we encounter, and against which we must guard. It is not safe to blind our eyes to them. Although we gladly recognize the fact that a new and better era is dawning, we must, with the Lord's help, resist all the untoward influences by which it is accompanied. These are scarcely less powerful, because they are only incidental,—the back currents, so to speak, of the rising tide of our civilization. It behooves us, therefore, not to be too boastful of what this age has achieved, and not to become too much engrossed in the earthly benefits which it ensures to us. Those things are not given to be an end in themselves, but only means to an end which is spiritual. They are not to be loved for their own sake, but for the sake of the higher opportunities to which they point. They should be chiefly valued for the hopes and joys which are wrapped up in them, and are the blessed promise of an endless future.

Thus we might keep on indefinitely in our consideration of "the age in which we live." The subject is one to be treated suggestively, rather than dogmatically. Yet it cannot be unprofitable to gather up some teachings of the Church regarding it, and bring them to bear on our present-day experiences. Two points at least shine out with unmistakable clearness. First, the new age has arrived, and, secondly, it has its own peculiar dangers and temptations. It does not burst upon the world in one sudden blaze of glory. It does not leap at a single bound to celestial heights of beauty and excellence. But, like all else that involves human progress, it starts from beneath, and grows slowly upwards. No more than in the past are men born regenerate. All still have need of shunning evils as sins against God, that they may be delivered from them, and filled with life from Him. All must endure trials and con-

flicts in the Lord's name and for His sake. But greater than ever before, are the helps He gives them at this day. Those whose eyes are open to perceive the truth of His new revelation, have the full assurance that His power cannot fail them. Yet they must do their part. A New Churchman has no right to be pessimistic. His face, if he is loyal to his principles, will always be set toward the sun-rising. He will ever see before him the glow of prophecy. Whatever temporary obstacles he may encounter, will go for nothing, when he contemplates the perfect plans of God, and remembers the everlasting promises.

JAMES REED

## EFFICIENCY

EFFICIENCY means the doing of the most of the best work in the shortest time and with the least wear and waste. Thus there are four elements which especially enter into the question of human accomplishment of the highest order—the quantity of work done, the quality produced, the length of time required and the waste involved in the process. A fifth consideration might be that of depreciation of the worker himself through decrease of strength and ability and the shortening of his years of service. But, generally speaking, under normal conditions of labor, this element may be considered as a feature of waste, for if our work were planned properly, and executed wisely, there would be no permanent exhaustion of strength, but there would be a reasonable provision for periods of recuperation in which lost ability might be regained, and perhaps new strength added. We should also remember that whatever of physical force is necessarily expended in the furtherance of spiritual purposes, is not wasted but wisely applied.

At the present time there is a remarkable wave of interest in this country in the whole question of efficiency. It is being realized that we are not getting the most and the best results out of the energy we are expending, that we are wasting our capital of nerve force by not directing it along the most economical lines, living too fast and too wastefully. Because of the abundant resources of our country and because we are a new nation, clearing an industrial wilderness, our methods of work have been haphazard, we have worked under abnormal pressure, and have found results so easy that we have not much questioned whether or not we might do more and better work, and with less waste. So long as we have been able, without too great effort, to produce enough to meet reasonable demands, we have not troubled ourselves about the question of economy. But a new spirit

is arising, prompting men to consider the obligation resting upon them to produce the most they can, and that too of the best quality, and with the least expenditure of time and strength. The fear of over-production is passing away before the new spirit of service and the desire to provide more abundantly for human needs. The love of doing good work and much of it, is taking new hold on men and women with large hearts. It is because this is primarily a moral obligation, and because it lies close to the problem of accomplishing the largest and best use in the world, that this subject is now presented for consideration. Men about us are considering efficiency in relation to material production. It is our especial task and interest to consider efficiency as the measure of all our individual activities of hand and mind, the use we make of the life God entrusts to us.

The order in which God has created the spiritual and natural worlds presupposes that the individuals who make up the societies in them both shall have useful relations to those societies, and shall perform some distinct service, be a part of the sum total of human machinery. The amount of work is not at all limited, there is not a certain task to be done by mankind, or a certain assignment which the individual must fulfill to qualify him for admission to the higher life of the world above. But there is an unlimited field of occupation in which every man may find as much to do as he wishes, and the more he accomplishes, and the better results he secures, the better is his condition, and the greater is his temporal and spiritual advancement. The profit is in the activity, the development of capacity, not in the concrete amount of production. This implies that the individual should not be satisfied with doing only the things he is obliged to do by outward circumstances, and getting through with them as easily and meagerly as possible; but rather that he should seek to accomplish the most work he is capable of, and in the best manner he can. That is, every man is under a moral obligation to be efficient, to do his work well, and to do as much as he can without injury to his capacity for long continued industry. We have no moral

right to waste time, or to leave faculties and strength totally unused, when there is opportunity to make them active. So far as we individually are concerned, we need to do our particular duties in the best and most expeditious manner possible, and take on more responsibility and labor as fast as we are able to carry them without injury to our health, strength and efficiency. The danger of attempting too much lies not in the quantity of our work, but in the quality of our working methods. The men who are really efficient are always busy, and the men who are always busy, if they plan their work aright and labor systematically, are efficient, and they are the ones to whom we go to get things done. But outside of that group are many of us who think ourselves extraordinarily busy because we feel the pressure of our work, and who imagine ourselves efficient because we manage to get through our tasks after some fashion. Our point now is, that each of us ought to examine his methods of work and the results accomplished by his industry, looking from the four points of view already mentioned. Am I doing as much work, constructive, useful work as I ought to do with my strength? Am I performing what I do undertake in the most thorough manner I can, or ought I to give up some of the things I am attempting in order to do something that will be more profitable and better adapted to my ability? Do I use my time to the best advantage, planning carefully the adjustment of duties and fitting little details into the loose-ends of the hours? Am I wasting time or strength on unprofitable things, or using up more nervous energy, muscular strength and reserve power than is consistent with continued labor through a reasonably long lifetime? The fact is that such questions as these seldom occur to the average person who is industrious, and fond of labor, and who readily assents to the proposition that it is everyone's duty to make the most out of his life. Somehow, we drift along, working according to habit, doing things as they press upon us and becoming almost bewildered by hurry and confusion. Time-planning is the key-note of the new ideal of industrial efficiency now being sounded by the wiser

prophets of better labor conditions. It is a lesson each of us needs in his own daily scheme of activity whether along professional, clerical or mechanical lines, or even in ordinary house-keeping.

But for those of us who desire to look at the problem from the highest, the spiritual point of view, another element is to be considered—the effect of the amount, the character and the intensity of our work on our spiritual condition, now and in the world to come. No ideal of temporal efficiency in production should trespass upon the soul's growth. From the standpoint of eternity no work is profitable which injures the spiritual life, no physical labor is demanded that removes the possibility of character betterment in doing it. And in the time-planning, no schedule of activities is rightly efficient which does not provide for the development of the higher faculties of the mind and heart and for the cultivation of heavenly instincts. The claims of the spirit are of paramount importance. Therefore we are to cultivate the habit of doing our physical and mental work in such a manner that the soul may derive profit, and of setting aside periods of specific effort for spiritual training. The modern ideal of business efficiency, valuable as it is, is likely to endanger the higher ideal of spiritual efficiency, unless men of religious principle and instinct take the lead in the industrial reformation that is in progress. Though the average business man may not admit it, the highest type of productive efficiency is that of the angels, for what they do lasts, and the doing of it increases their very capacity for more work. They make no unnecessary motions, waste no efforts, make no mistakes, and never slight their work. Since we are spiritual beings now, even while occupied in this world, our efficiency is to be measured in part by the angelic standard. We cannot do either natural or spiritual work without constant help from above. It is a fundamental principle that "from use, through use and according to use, is life given by the Lord." Use, the greatest and best, must be our natural as well as our spiritual ideal. Order is heaven's first law, and the angels are efficient because they labor in absolute

accord with divine order. Likewise will our work in the world be ultimately most efficient when we labor according to the principles that the Creator has stamped on everything He has made, both spiritual and natural. The Divine Providence regards eternal things, and temporal things so far only as they accord with the eternal. Circumstances oblige us to consider temporal things constantly, but it is possible to see behind them and recognize their relation to spiritual concerns, and be governed accordingly in doing our duties in the natural world. One who labors in co-operation with the Divine Providence is sure to be a most efficient, most productive servant in the Lord's kingdom.

The measure of man's spiritual efficiency is that of use, of service to the Lord, to the fellow man, and to self. Human uses vary in both quality and quantity, and therefore one's efficiency is to be gauged both by the amount of service he performs and the exactness and careful completeness with which he does it. And it is his individual duty constantly to increase both the quantity and the quality of his work as much as possible. This is not likely to be accomplished so much by increase of energy as by improvement of methods. The Lord helps in the accomplishment of this purpose, for the more and the better one works the more strength the Lord gives, His divine influx being into effort. To do more and to do better work without undue deterioration of body or mind, is a worthy Christian ideal.

How shall we set about the attainment of this ideal? One writer, a sincere friend of the New Church, states five considerations to be observed—“(1) an attitude of willingness both to work and to learn, an open-mindedness or responsiveness; (2) adaptation to the conditions imposed, the methods in vogue, the schedules employed; (3) concentration on the work at hand, that it may be well done, with economy of motions, with rhythmic rather than spasmodic activities; (4) preservation of a calm interior, freedom from nervousness and sense of hurry, a reposed state of mind, corresponding to the regularity of motion required for the given task; (5) the play of thought or imagination which

enables the mind to rise above mere routine and physical fatigue, give heed to the higher values of life, and reflect upon the conditions within and without that make for improvement."

First of all, then, one must cease to think of work as a burden, to be carried only under compulsion, and, if done for someone else, to be taken as lightly as possible. One writer asserts that the greatest danger from which workmen and employers are suffering today is systematic soldiering. Swedenborg says that "workmen transgress against the seventh commandment who do their works unfaithfully and dishonestly." The tendency to shirk is in all of us, and needs to be overcome, especially when we are in lines of occupation in which our task is rather indefinite. "There is no question," says someone, "that the average individual accomplishes the most when he either gives himself or someone else assigns him a definite task, namely, a given amount of work to do in a given time." Even when willing to work, we postpone and procrastinate, and substitute the thing we like to do in the place of the thing that is irksome.

One who is employed has the problem of doing most expeditiously and carefully the task assigned him, and applying his extra time outside of what belongs to his employer to profitable interests that may divert his attention, rest his mind and nerves by contrast, and add something to his store of experience. One whose time is practically his own has the problem of laying out definite things to accomplish and going at them with determination to do them quickly and well; that is, he must learn to be a good manager of himself. No one can make a fair estimate of his capacity for work until he has begun to plan carefully his doings, with a view to real efficiency, and economy of time and strength. There are probably more people suffering physically, mentally and morally from either too little or too poorly managed work, than there are who suffer from over-work. There is enough to be done to keep all busy, and the economy of the world is so planned by the Lord that there is something for every individual to do that will be useful to the community as a

whole. The efficiency of society itself implies that each person in adult life shall be, so far as possible, dependent upon himself rather than upon others, shall be a helper rather than a burden. And when conditions arise that prevent his doing active work he is still under obligation to be as little hindrance to the world's work as possible, and to be patient, kindly, and grateful in accepting what is done for him.

But our present consideration bears especially upon the responsibility of those who are well and strong and able to work, and to work hard. It is a plea that we consider the results of our present activities and see if the fruitage can be increased in quantity or quality, or even the same amount be accomplished with less wear on our nerves and strength, and with less incessant demand upon our time, so that there may be increased opportunity for adding new responsibilities or branching out into new fields of culture. "By their fruits ye shall know them," is a principle by which to test our ways and habits of working. We need to consider the means, the instrumentalities with which we work, and the methods we employ in the doing. Animals learn by trial and error. As children we experiment, and seek always easier ways of doing things; as adults, we need to try different methods, and take advantage of each new means that appears, that will increase our efficiency. And we should study the experience of others and as we see them more productive than ourselves, or working with greater facility and ease, we should ascertain their methods, and not simply conclude that they have more ability and better opportunity than we. The fact is that most of us work along in the channels of habit that we first learned, we do things as we always did them, and take it for granted that there is no better or easier way to do them. This is especially true of our habits of study, and of reading; we have given up the practice of actual discipline of ourselves.

Our first trouble is lack of concentration, ability or willingness to focus the mind intently on the thing we are doing. We easily drift into careless and indifferent ways of work-

ing, with the mind flitting off into other lines at the least interruption. It is possible to do much manual labor in this way, but not the best. In mental work such absent-mindedness is the sure destroyer of efficiency. Concentration of mind enables one not only to work with more and better results in the way of output, but to sort and arrange the many ideas as they enter the mind, and group them, so that by their association, he can at a later time call up easily one thing after another, and unconsciously follow the former process without unnecessary effort. This also means that impressions are stored up in such an orderly way that the subconscious mind can assume an ever increasing proportion of the responsibility and do constantly a larger proportion of the work we have in hand. There is no reason why we should not train our subconscious minds to help us do many things with the same facility with which it helps the pianist to manipulate the keys and the typewriter the machine.

Another difficulty is that after we are out of school we do not continue our training as systematically as we should, do not discipline our minds or even our hands in orderly ways of operation; our methods gradually become rambling, so that much of our effort is wasted and without useful result. Some with abundance of energy waste much of it by forcing it to work by irrational and unsuitable means and methods. Others appear to lack in energy because they have not found the channels in which their kind of energy can efficiently express itself, and they do not see any results that please and satisfy them. This suggests the place of interest and enthusiasm in efficient work. If a man's necessary occupation affords little opportunity for more than routine and monotony and consequently little new occasion for more than casual and listless attention, he should have an avocation, a hobby upon which he can expend careful consideration and which will call forth his enthusiasm. He needs it for an outlet and for an exercise of the will, and also for a training in his needed search for efficient methods.

Still another difficulty lies in the matter of conservation of energy, what we might call adaptation of work to one's nerve

force and physical strength. To "work on one's nerve," as we say, is to impair one's efficiency, and destroy capacity for long continued responsibility. We do wrong to encourage others, or to venture ourselves, to work beyond one's capacity even though it appears that an enormous amount of work is thus accomplished. Relaxation and diversions hold an important place in the solution of the efficiency problem. Recreation in the proper proportion, of the most suitable type, must be figured in as plans are laid for the most efficient use of one's time, strength and ability. The conservation of one's power, that its exercise may cover the longest period of service, is a moral and religious obligation.

But no one's responsibility is limited to his work as an individual. Every one is also a member of society, and he should apply his ideals of efficiency to the organizations and institutions of which he is a part and with which he works. As an inventor studies to improve his machine, so we ought to put more thought into the increased efficiency of our institutions. The application of this principle to manufacturing and railroading is accomplishing marvelous results in our day, but many of our most prominent forms of social and religious organization although strangely outgrown and inadequate, are still untouched.

We are slow to apply the principle of efficiency to the immaterial things and conditions with which we come into contact. There are many who assert that the church itself is the most inefficient institution in present society, that the proportion and quality of its output and results are in no way commensurate with the enormous expense involved in its maintenance, or the energy put into the efforts of its members. A measure at least of the deficiency must be due to our methods, and it is your duty and mine, as churchmen, to consider how we may bring about improvement.

In the first place the results of our Sunday Schools are far from satisfactory, either in the amount of religious education or in the lasting impression made on the young. We seem to get from our school work only confused and scattered bits of information about the Bible, and do not have

a consistent and thorough knowledge of even its literal sense. Each one of us knows some of the reasons for failure, but are we ready to attack the problem as one that can be solved, changing the conditions of management according to the laws of mental and spiritual efficiency?

The methods employed in carrying on the work of the external church are mostly antiquated and poorly adapted to its present needs. Its financial methods should be a cause of mortification to the business men who are connected with it; its so-called business meetings are generally without the practical wisdom that most of its participants use in their own personal affairs; it has auxiliary organizations looking after various fields of interest, but they are at best only loosely related, and central management of their activities is only nominal; and so on, through a list to which each one of us might add many items. And, strangely enough, it is the first tendency to lay the responsibility for these conditions upon the minister, who has little training for scientific management, instead of upon the experienced men and women of affairs who are always seeking for more efficiency in their own particular lines of secular responsibility.

It is not meant to excuse the minister from this test of efficiency; he certainly is not the factor in the temporal or the spiritual affairs of men today that he ought to be. Part of the fault is his to be sure, but a larger part is due to what is expected of him. He is freely criticised for his inefficient preaching and inefficient pastoral activities, but little notice is taken of the kind of efficient work he must do in all sorts of trivial responsibilities about the church that ought to be done by others. It is right that we should demand more efficiency of our ministers; the more we expect of them, of the right kind, the more they will do, and do it cheerfully, but we ought to see that they have the proper conditions under which to accomplish the best results. Many little things we ought to do ourselves, instead of making him a committee of one to look after them. It will be better to think them out individually in private, than to mention them here. If he does not buy books and does not read them, let

us find the reason why; perhaps he cannot afford them. If he is struggling along with a pen, persuade him to buy a typewriter, if he can afford one; otherwise buy him one and make him use it. If he has much calling to do, and can afford an automobile, encourage him to have one, or, if you have one yourself and a chauffeur, put your car at his disposal two or three times a month for calls on distant parishioners. In other words, do not take the attitude that these things are pampering him, but that they are furnishing ways by which you may get more and better work out of him. The reason he so often has nervous prostration is not because he is overworked, but because he cannot work, or perhaps does not, in the proper way and with the right assistance and encouragement from those upon whom he must necessarily depend. Do not judge the efficiency of your minister by the hurry he manifests and his appearance of industry, but by the results of his work, and if they are not what they should be, see if you can help his methods and his means.

But enough of unsought advice. Our present object is to arouse an appreciation of how much of the strength and energy and time we are employing in our work is practically wasted, how far short the results of our activity are of the amount and quality of production we ought to show. We are easily convinced that we are doing all we can until we begin to examine the conditions critically. Then we realize how much room there is for improvement in the very things we are doing every day, and how much more we could do if we worked to better advantage. Most of us are sure we cannot work any harder; that is not needful. The question is rather, are we doing things well, most economically, in the most efficient manner. Could we not by better methods, do what we are doing with less time and energy, with less waste and wear, and so be able to accomplish more in the Lord's name. Efficiency is always in the line of righteousness and use; it is one of the requirements of religion applied to life. It is a proper ideal for temporal activity in the natural world, both for the sake of tangible results and

because it is the standard of use in the life of the world beyond. Every man must needs be a workman if he will be a servant of the Lord, either a workman with the hands or with the head, or with both, but at all events with his heart. Swedenborg thus presents the ideal, "Every workman who looks to the Lord, shuns evils as sins, shuns idleness, because it is the devil's pillow, shuns insincerity and fraud, and shuns luxury and intemperance. He is industrious, sincere, sober, content with his lot, and works for his neighbor as he would for himself."

PAUL SPERRY.

## THE WORD AND THE HEAVENLY DOCTRINE

IN the March number of *New-Church Life* the Editor makes a defense of its custom of calling Swedenborg's theological Works "The Word"; and he finally says, "All attempts to draw a distinction between the Divine Word and the Divine Doctrine are altogether artificial and forced."

Swedenborg throughout his voluminous writings frequently and repeatedly draws this distinction, a distinction so vital and important that it lies at the very foundation of the church itself. Thus he says:

They who read the Word without doctrine are in obscurity respecting every truth...to them the Word is like a candlestick without a light,...The Word is not only understood by means of doctrine, but it also gives light, as it were....Experience in the Christian world bears witness that the Word is seen from doctrine, and is also explained according to it. (Sacred Scripture, nn. 52, 53.)

Again he says:

That the church is from the Word is not a matter of doubt; for the Word is the Divine Truth itself; the doctrine of the church is from the Word...But that the *understanding* of the Word makes the church may be called in question, inasmuch as there are those who believe they are of the church because they have the Word....Wherefore it will be here proved that *not the word, but the understanding of it makes the church.* (*Ibid.*, n. 76.)

Again:

The church is only where the Word is rightly understood, and it is such in quality as is the understanding of the Word with those who are in it. (*Ibid.*, n. 79.)

This understanding of the Word is not attained by the mere possession and reading of it, but is attained by means of *doctrine*. Thus we read, "The Word is not understood without doctrine" (*Ibid.*, n. 51); "That there

may be a church, there must be doctrine from the Word, since without doctrine the Word is not understood" (*Heavenly Doctrine*, n. 243).

For this reason, wherever there has been a church, there has been doctrine; and this is the case in the heavens as well as on earth. Even in heaven doctrine is necessary, for we read:

All instruction is given there from doctrine derived from the Word, and not from the Word without doctrine. Christians are instructed from the heavenly doctrine, which is in entire agreement with the internal sense of the Word; all others...are instructed from doctrines adapted to their apprehension, which differ from the heavenly doctrine only in this, that spiritual life is taught by moral life in agreement with the *good dogmas of their religion*. (*Heaven and Hell*, n. 516.)

Here and in many other passages Swedenborg shows that the Word alone without doctrine is not used in instructing those in the other life, and that the church cannot be founded and exist through the Word alone, but is founded by doctrine. He shows why this is, in "Sacred Scripture," n. 51, where he says, "The Word is not understood without doctrine. This is because the Word in the sense of the letter consists of mere correspondences." These passages of Swedenborg show the distinction between the Word and doctrine, and that doctrine is vitally necessary to the development of the understanding and the formation of the church. The Word is one thing, doctrine is another; each has a function and use; both are necessary. Swedenborg could not have been so foolish as to spend so much time and pains on making the necessity of doctrine so clear, if the remark of the Editor of *New-Church Life* is true, that "all attempts to draw a distinction between the Divine Word and the Divine Doctrine are altogether artificial and forced."

In the same article an attempt is made to limit the principle brought out by Swedenborg in his letter to Beyer, in regard to the distinction between the Word and doctrine. Swedenborg there says:

In respect to the Writings of the Apostles and of Paul, I have not quoted them in the "Arcana Cœlestia" because they are *doctrinal writings, and consequently are not written in the style of the Word*, like those of the prophets, of David, of the Evangelists, and the book of Revelation. The style of the Word consists altogether of correspondences, wherefore it is effective of immediate connection with heaven; but in doctrinal writings there is a different style, which indeed has communication with heaven, but mediately. (Documents, vol. ii, p. 240.)

We note that this distinction between the Word and doctrine, and that the Word is written altogether of correspondences, is in full agreement with numbers of statements scattered through all the theological works. What he says of the nature of doctrinal writings also agrees with his teaching concerning doctrine, that because doctrinal writings are not written in the style of the Word they open up the subject more clearly to the understanding, by which the church may be founded and formed. For in the letter to Beyer, Swedenborg continues, "Wherefore matters of doctrine could not be written in the style of the Word, but they had to be expressed in such a manner as to be understood more clearly and intimately."

Swedenborg here makes it perfectly clear that the Word is written in a different style from doctrinal writings. He does not confine his remark to the doctrinal writings of former churches, but says "doctrinal writings could not be written in the style of the Word." This is so clearly opposite to the position taken by *New-Church Life* that the Editor attempts to exclude Swedenborg's writings from its scope and application. First, he flatly contradicts Swedenborg's statement that "doctrinal writings could not be written in the style of the Word." He says: "The Writings are written in the Divine style"; "The Writings are written in correspondences"; "The Writings possess an internal sense," "By the Writings of the New Church there is immediate communication with heaven and the Lord." He endeavors to establish his position by explaining the difference between the Divine style of the Word and books which are not the Word. He sets aside Swedenborg's

clear and lucid explanation of the difference between them, an explanation which has been unanimously accepted by all men in the church hitherto, and offers the following explanation:

The primary touch-stone by which we may distinguish the Divine Books in the Bible from those which are not Divine is the principle of *continuity*. Those books are Divine in which the internal sense is continuous, but those are not Divine which do not contain continuous truths from the Lord. *Human* doctrine can never consist of continuous truths throughout, but the Heavenly Doctrine consists of nothing but "continuous truths, laid open by the Lord through the Word" (True Christian Religion, n. 508). . . . This continuity, therefore, at once identifies [the Writings with the Word, because it identifies] them with the Divine itself, which is continuous because it is infinite.

The Writings could not have been written at all unless written in correspondences; but the difference between the correspondences in the Writings (as in every other form of the Divine Word) and those in human compositions, is that in the former the correspondences are "continuous truths," whereas in the latter, *even the best of them, the correspondences are broken by things that are fallacious.*

Let us here put in juxtaposition Swedenborg's statement of the difference between the Word and the writings of the Apostles, and that of *New-Church Life*.

Swedenborg says, "The Style of the Word consists altogether of correspondences, but in doctrinal writings there is a different style." *New-Church Life* says, All writings are written in correspondences, but in merely "human compositions the correspondences are broken by things that are fallacious." This definition is a pure assumption, which has not one word of support in the Writings of Swedenborg; and moreover, it is directly contrary to what Swedenborg so frequently says in regard to the style of the Word, as that "spiritual and celestial things are expressed by historicals, representatives, and significatives, and that in the prophetic style *it is not continuous but broken.*" (See *Arcana Coelestia*, nn. 66, 1139-1144, *Spiritual Diary*, n. 2721.) In this style spiritual things were represented by persons, words, and things that were

altogether different (*Arcana Cœlestia*, n. 1756). If the Word were not written in this style, Swedenborg says:—

*The Word would not be Divine, but because it is such, it could by no means be written in another style; for by this style, and by no other, human things and words correspond with heavenly things and heavenly ideas, even to the least iota.* (*Arcana Cœlestia*, n. 2899.)

Again he says, “The Word alone has an internal sense” (*Ibid.*, n. 8971). “By means of the Word alone there is a connection of heaven with man,—but this is not apparent in the letter” (*Ibid.*, nn. 9280, 9942). “That there might be conjunction of heaven with man, the Word was written *wholly by correspondences*” (*Heaven and Hell*, nn. 114, 307). “The books of the Word are all those that have the internal sense; but those books which have not the internal sense are not the Word” (*Heavenly Doctrine*, n. 266). “The Word is therefore more wonderful than all other writings” (*Arcana Cœlestia*, nn. 10632-10634). “Since the time of the writing of the Word the Lord speaks through it with man” (*Heavenly Doctrine*, n. 263; *White Horse*, n. 14). “The Word is wonderful in this respect, that it is Divine as to every jot and word.... It has been so written that *its words in their series* involve series of spiritual things, which do not appear to a man unless he is acquainted with correspondences. *In this way* what is Divine lies hidden in the Word” (*Arcana Cœlestia*, n. 10663). In writings of this kind the spiritual sense was altogether different from the sense of the letter; so that if one clearly understood the literal sense only, he did not understand the doctrinal idea concealed within (*Ibid.*, n. 1756).

Some books in the Bible—such as Job and Solomon’s Song—are written by correspondences, which express moral truths under types and representatives; but these differ from the books of the Word. Swedenborg explains wherein the style of these differs from the style of the Word, and therefore why the book of Job is not one of the books of the Word.

"It is because it has not the internal sense which treats solely of the Lord and His Kingdom; for this is the one thing that makes a book of the genuine Word" (*Ibid.*, n. 3540). Job is indeed "written by pure correspondences, but the spiritual sense therein collected from correspondences does not treat of the holy things of heaven and the Church, as the spiritual sense of the prophets does; consequently that book is not among the books of the Word" (*Apocalypse Explained*, n. 543<sup>e</sup>). "The book of Job....indeed contains an internal sense, but not in series" (*White Horse*, n. 16).

We note that in all the above passages, Swedenborg is treating of the books of the Sacred Scripture or the Word, and is discriminating the books from Genesis to Revelation which are the Word from those which are not the Word. In general all the books of the Word are written by correspondences, representatives, and significatives in which the letter expresses a series of natural events descriptive of persons and things, carrying *a sense altogether different from the internal sense*. But the books not so written are not the Word. A few books are written by correspondences which are yet not the Word, because they do not contain a series of spiritual and celestial ideas. The other books express their meaning clearly in the literal sense.

In all this elaborate treatment of the subject in hundreds of places, Swedenborg never calls any books "the Word" except those in the Scriptures of the Old and New Testaments. Never once does he call his writings "the Word"; but he calls them "heavenly doctrine," "Doctrine," "Theology," "Doctrinals," "Dogmatical things," and so on.

The Editor of *New-Church Life* believes he has discovered that which makes the real difference between books of the Word and books not of the Word. He says, "It is in the principle of continuity," basing his whole argument on the statement (in *True Christian Religion*, n. 508), that the "doctrinals of the New Church are continuous truths

laid open by the Lord through the Word." Swedenborg here is not treating of the Word, but is contrasting the *dogmas* of the Old Church with the *doctrinals* of the New. He says the former are not derived from the Word, but the latter are drawn from the Word by the Lord. In both cases they are doctrines; but in one case they are false, and therefore close the understanding, while in the other they are true, and therefore open the understanding. Swedenborg is not here saying that the Old Church doctrines are not the Word, and that his writings are the Word. He is showing how truth in the form of doctrine operates to open the understanding more and more in the light of heaven. If doctrine were written in the style of the Word, it could not perform this use. The fact is that Swedenborg is here treating of the quality of doctrine, not of the series of the Word, its continuity, its internal sense, and of its peculiar style of writing.

The Editor of *New-Church Life* says that all books are written by correspondences, and that the only difference between Divine books and books not Divine is that in Divine books the continuity is perfect, but in books not Divine, "even the best of them, the *correspondences are broken by things that are fallacious*." It is remarkable that Swedenborg never hints at such an explanation of the difference between the Word and other books. The Editor himself affirms that the writings of the apostles belong to the class of books that are not Divine. He says that the books of the Word "are written by correspondences, which are continuous truths," and classes the writings of the apostles among those that are "written by correspondences which are broken by things that are fallacious." But Swedenborg says: "The writings of the apostles are *doctrinal writings, and consequently are not written in the style of the Word*, . . . . in doctrinal writings there is a different style. . . . . Wherefore matters of doctrine could not be written in the style of the Word, but they had to be expressed in such a manner, as to be understood more clearly and intimately" (Documents, vol. ii, p. 240). It was not from some de-

fect of "continuity" that the doctrines of the Christian Church are not the Word; but it was from a definite design and purpose, that the truth "might be expressed in such a manner as to be understood more clearly and intimately." And Swedenborg further says: "The writings of the apostles are, nevertheless, good books of the church, insisting upon the doctrine of charity and its faith as strongly as the Lord Himself has done in the Gospels and the Book of Revelation."

Swedenborg however did not leave us in the dark as to the style of his theological works. In "Influx," n. 20, he tells how from a philosopher he became a theologian. He says, "From early youth I had been a spiritual fisherman, . . . which signifies a man who investigates and teaches natural truths, and afterward spiritual truths rationally." As an expounder of the Word he did not change the style of his writing; he changed the subject matter, but he carried his style of rational investigation and systematic rational instruction into the realm of theology. His books are a philosophical, rational theology; and their style is altogether different from the style of the Word. It is on account of this difference of style that his writings as Heavenly Doctrine express the truth in such a manner as to be understood more clearly and intimately than "the Word." As the ancient style of writing by correspondences was taken up and used by the Lord in writing the Word, so the philosophical style of writing was taken up and used in expounding and explaining the Word so that its real contents might be clearly presented to view and be understood.

According to the Editor of *New-Church Life*, fallacies interrupt and break the series in a writing, and this alone causes it to be not Divine. Swedenborg however says that the letter of the Word "speaks according to the apprehension of man, and therefore according to the fallacies of the senses" (*Arcana Cœlestia*, n. 735). "The sense of the letter, especially in the prophecies, is full of such things" (*Ibid.*, n. 1861). These appearances are as "clouds" (*Ibid.*, n. 1043). "Many things in the Word are

spoken according to appearances; yea, according to the fallacies of the senses; as that the Lord is angry, punishes, curses, kills, and many such things" (*Ibid.*, n. 1408). When we test the Editor's explanation by Swedenborg's teaching, we find it contradicted at every point; and therefore we conclude that his ideas on this subject were not drawn from Swedenborg.

The New Church in all its branches has hitherto been unanimous in teaching that "the Word" means the books of the Sacred Scriptures from Genesis to Revelation which are enumerated by Swedenborg, and that no other books are written in that style, this belief being based entirely on the teaching of Swedenborg. We will in conclusion briefly quote from an authority which even the Editor of *New-Church Life* will not question; nor will he use the term "negative" in characterizing it.

We read:—

The difference [between the Word and the Writings] is, as all New-Church men know, that the Word in the letter is Divine Truth clothed in correspondences, significatives, and representatives, whereas the internal sense as revealed by the Lord in the Writings of Swedenborg, is Divine Truth unclothed of the drapery of correspondences, and presented in language doctrinal and abstract.

But the Divine style of the Word is not repeated, nor is it imitated in the Writings. The Word is the Lord as to the Divine Truth in the very ultimates of nature, speaking to us in parables, representatives, and correspondences. But the style of the Writings, as we have often expressed it is doctrinal, didactic, and philosophic.

The Writings, as all New-Churchmen know, are not an addition to the Word, or an extension of it, in the letter; they are not an enlargement of the volume of parables, types and correspondences, nor are they in the style of these; but they are the evolving by the Lord through His servant Emanuel Swedenborg, of some of the Divine Truths which through the prophets He had caused to be involved and folded away in the Divine forms of the Word in the letter.

The Word and the Writings then are not *alike*, nor are the Writings *equal* to the Sacred Scriptures; the very style is different, and indeed not on the same plane of utterance. (*Words for the New-Church*, vol. i, pp. 38-40, 342, 347-348.)

JOHN WHITEHEAD.

## A SCIENTIFIC ESTIMATE OF SWEDENBORG'S "PRINCIPIA."\*

### ARTICLE II.

ON June 8 and July 6, 1912, Dr. M. Lane presented to the Bavarian Academy of Sciences at Munich, two memoirs in which conclusive evidence is given that the Roentgen rays are undulations of the ether since they can be diffracted by the atoms of crystals, arranged according to the form of the Bravais space-lattice. Thus the Roentgen rays are ultra-violet ether-waves of extremely short wavelength (about 0.00001 micron), but at the same time as Bragg demonstrates, they are corpuscles which move with the velocity of light, that is to say, they are ether particles which both move onward and at the same time oscillate about ten million million times per second.

The intimate relation between electrons and ether particles is evident. Free ether particles travel in light rays with an invariable speed,  $V=3\times(10)^{10}$  cm. per sec., conveying a variable momentum.† Free electrons, whether in cathode rays or in the  $\beta$  rays from radium, have identical masses, but travel with slightly varying velocities averaging about  $1/4$  V, or a quantity of the same order as the velocity of light. Hence the dimensions of ether

\**The Principia*, or the First Principles of Natural Things: to which are added the Minor Principia and Summary of the Principia. By EMANUEL SWEDENBORG. Translated from the Latin by James R. Rendell, B. A., and Isaiah Tansley, B. A., with an introduction by Isaiah Tansley, B. A., and a foreword by Professor Sir Wm. F. Barrett, F. R. S. London: The Swedenborg Society. 1912. 2 vols., 8 vo. \$8 per set.

†The proper motion of the magnetic medium is doubtless very rapid, and possibly is swifter than the velocity of light; but the propagation of magnetic perturbations is a secondary effect, and is much slower than that of light. Thus light passes from the sun to the earth in eight and one-third minutes, while magnetic perturbations require for their passage, on the average, about four hours and twenty minutes.

particles and electrons can not be very different. Moreover, the readiness with which cathode rays are transformed into Roentgen rays, and the reverse, suggests that ether particles conveying radiant energy may be transformed (perhaps by the change of their reciprocating oscillations into some kind of continuous rotation) into electrons in which are the beginnings of mass energy. Thus the momentum conveyed by light carries with it a temporary mass which under certain circumstances may become permanent mass energy, matter being created out of light.

That the electron, or least electric particle of matter, is a converted ether corpuscle is indicated by the following facts: The electric charge of an electron, multiplied by the potential difference in electrostatic units between the terminals of a Crookes tube used for the production of cathode rays (that is, swiftly moving electrons), and thence of X-rays, is equal to the vibration-frequency of the vibrating ether corpuscle (or X-ray which originates from the conversion) multiplied by the velocity of light and by Planck's "Wirkungs quantum," or least quantity of work,

$$h = 6.55 \times (10)^{-27} \text{ erg seconds.}$$

The charge on an electron is  $c = 4.774 \times (10)^{-10}$  C. G. S. electrostatic units. The velocity of light is  $V = 3 \times (10)^{10}$  cm. per sec. A potential difference,  $v = 40000$  volts  $= 133 1/3$  electrostatic units, being applied to the terminals, we have for the frequency  $(1/\lambda)$ , since  $h V/\lambda = e v$ ,

$$\lambda = \frac{6.55 \times (10)^{-27} \times 3 \times (10)^{10}}{4.77 \times (10)^{-10} \times \frac{40000}{300}} = 3 \times (10)^{-9},$$

where the wave-length ( $\lambda$ ) is given in centimeters. This value is in almost exact agreement with the average wave-length of the X-rays determined by Lane from their diffraction pattern, where the values range between 1.27 and  $4.83 \times (10)^{-9}$  cm. (See R. A. Millikan, *Science*, N. S., vol. xxxvii, n. 943, pp. 119-133, January 24, 1913). Since Planck's  $h$  was found by an entirely independent method, the confirmation is most satisfactory.

The validity of the preceding equation is easily shown by putting it in the dimensional form:

$$\hbar V/\lambda = ev = \frac{ML^2}{T^2} \times T \times \frac{L}{T} \times \frac{1}{L} = M \frac{L}{T} T^2 \times M \frac{L}{T} T^2 = \frac{ML^2}{T^2}$$

from which it is evident that, since radiation and mass movement are equally forms of energy (or  $\frac{ML^2}{T^2}$ ), the transformation is included as a particular case of the transformation of energy.

From this test it follows that Planck's natural unit of work (which is stated in terms of length-mass-time units, and therefore cannot go back of the first initiatment of matter which is the electron, since it has itself been derived from experiments with matter) represents the available energy in an ether corpuscle which can be converted into an electron, or *vice versa*. Since the velocity of the electron is less than that of light, we may infer that a portion of the onward motion of the ether corpuscle and the whole of its oscillatory movement has passed into rotary motion in the electron. All of which goes to prove that Swedenborg's vibrating ether particle which has a structure and contains a definite quantity of energy (*conatus*) is a reality. The swift onward motion of an electron, when transformed, can become, in combination with other similar movements, an orbital revolution within a group of revolving electrons, which make an atom.

The ether corpuscles are impelled outward from the sun, and passing through the universal magnetic medium, they receive the latter at their advancing poles and emit the magnetic element in the rear. Consequently, there is a magnetic vortex around each advancing ether corpuscle produced by the motion, the advancing poles of the ether particles having positive magnetism and thus attracting the northern hemisphere of the earth (which is magnetically negative) sunward. Conversely, the southern hemisphere is repelled by the magnetism of the solar radiant beam. From this magnetic field around the advancing ether corpuscle, the corpuscle itself receives a rotation with the line of luminous propagation as its axis, which must be distinguished from the transverse oscillation, or vibratory deformation of the corpuscle, with its alternating magnetic

field. The latter is in evidence in magnetic rotation of the plane of polarization of light, or in reaction upon revolving electrons. The nearly constant radial magnetic field from the sun produces the diurnal variation of the elements of terrestrial magnetic force through the earth's rotation. The existence of this radial magnetic field from the sun in addition to the sun's polar magnetic field which governs the annual and secular variations of terrestrial magnetism has been shown by Professor Frank H. Bigelow in his treatise on "Solar and Terrestrial Magnetism in their Relation to Meteorology" (*Bulletin* No. 21, U. S. Dept. of Agriculture, Weather Bureau, Washington, 1898.)

The ether particle as a definite entity appears to be beyond dispute. If Swedenborg, instead of filling his hypothetical air particles with particles of the first and second elements, had included in the shell of fifth finites (positive electrons?) a filling of active ether particles (thus approximating to the negative electrons which in a way he does distinguish from ordinary ether), he would have come nearer to the atom as we now know it. Little has as yet been discovered in regard to the positive electrons (Swedenborg's fifth finites?), but if they also are formed from the ether, the whole atomic structure shares in the penetrability of the ether structure. "The impenetrability of one atom by another is only a fact when the mutual velocity is small, say  $(10)^5$  cm. per sec.; it ceases to exist when that velocity is sufficiently increased, say, ten thousand times" (Bragg—"Studies in Radio-activity," p. 41). A helium atom, discharged in the disintegration of radium, passes through several hundred thousand atoms before its momentum is so much reduced as to rob it of ionizing power. Thus the old dogma of the "impenetrability of matter" has very nearly vanished, and the way is open for assent to Swedenborg's doctrine of penetration.

A remark is made by Swedenborg to the effect that particles of different orders of magnitude can have no mutual influence. There are minute corpuscles, he says, "which are so small as to be able to move only a volume of ether,

but not in a volume of air." (Principia, part iii, chap. v, n. 21, p. 219, vol. ii). In confirmation of this we find that the  $\beta$  corpuscles emitted from radium, though able to affect the ether, move with so great a velocity that they produce but little ionizaton of the air molecules; but the  $\alpha$  rays, or helium atoms, move more slowly and especially near the end of their path, when their velocity has been nearly neutralized, they ionize the air freely.

In 1885, the discovery was made at the Allegheny Observatory that the wave-length of the maximum of energy in the spectrum of a black body travels towards the shorter wave-lengths as the temperature rises. This movement signifies that either the molecules, or the atoms within the molecules, vibrate more rapidly as the temperature increases; but no similar change takes place in the frequency of the vibrations, or the revolutions of the electrons when a gas is heated. The movement of the electrons is of a finer order, and can not be affected by the grosser shocks of ordinary thermal processes. Sir Oliver Lodge has demonstrated the diversity of the magnetic element and the ether, and their wholly different orders of magnitude, by his failure to find any change in the motion of light through a powerful and rapidly revolving magnetic field, by means of his ether machine.

Here, as in so many other cases, there are points of contact between Swedenborg's doctrine and the data of recent discovery; but we cannot follow him when he makes his successive finites originate at increasing distances from the natural sun (though in the order of creation they are no doubt removed further from the spiritual sun), for we find evidence of all the existing orders in the sun itself. Thus when he postpones the formation of fifth finites, and thus of atoms, until a distance as great as the earth's is reached, we have to note that not merely atoms and electrons, but even a few refractory molecules, such as the hydrides of calcium and magnesium and those which give the titanium flutings, presumably due to titanic oxide, exist in the sun.

In pursuance of Swedenborg's thought that each stage of composition is a repetition on a larger scale of preceding steps, we may ask whether the spherical atoms coalesce into a larger sphere in the molecular compound. The answer given by chemistry, basing its argument on the molecular rotation of the plane of polarization of light, is that there are one-sided molecules and in some cases there are isomeric varieties of the molecule, one being right-handed and the other left-handed as in a perversion, or mirror reflection. To this argument we may now add that the molecular stopping power for the  $\alpha$  particles is independent of the chemical association of the included atoms. The  $\alpha$  particle (itself an atom, though one of small size) threads its way through individual atoms, and the stopping power of the molecule is simply the sum of the stopping powers of its constituent atoms, each atom resisting in proportion to the square root of its atomic weight, as if it were free, showing that the atoms are still independent even in molecular association. Hence the doctrine of successive orders of spherical elementary particles reaches its termination in the atoms, unless the spherulites of incipient crystals, which are spherical bodies containing myriads of molecules, may be considered another, but a somewhat indefinite order.

I have indicated in what precedes that a distinction is to be made between the luminiferous ether and that "ether of space" of which Sir Oliver Lodge writes ("The Ether of Space," by Sir Oliver Lodge, F. R. S., 1909). The latter is the same as Swedenborg's magnetic element, or aura. In it reside the attractive forces between two bodies which, as Professor Lodge explains, is a residual effect depending on the much greater Newtonian "tension" (or "pressure" in Swedenborgian terminology) which exists as "a certain condition or state of the medium to variations in which from place to place the force is due" (*Op. cit.*, p. 153).

A body only really moves because it is pushed by something from behind. The essential force in nature is the *vis a tergo*. So when we have found the "traces," or discovered the

connecting thread, we still run up against the word "cohesion"; and we ought to be exercised in our minds as to its ultimate meaning. Why the whole of a rod should follow, when one end is pulled, is a matter requiring explanation; and the only explanation that can be given involves, in some form or other, a continuous medium connecting the discrete and separated particles or atoms of matter. (*Op. Cit.*, p. 109.)

The progress of modern discovery has almost overwhelmed us with riches. We cannot make an exhaustive summary, but enough has been given to show that Swedenborg's far-reaching prevision touches this new knowledge at a multitude of points.

Lack of suitable experimental facts partly accounts for the comparative absence of a dynamical element in many of Swedenborg's theories which seldom advance beyond a preliminary kinematical stage. Could he have had access to the abundant observations which we now possess, he would no doubt have seen that some of his speculations were insecure on this account. It is therefore not so much an occasion for criticism that several of his attempts at scientific prevision should have failed. The marvel is that so much of his theorizing is in remarkable accord with recent discovery. It should of course never be forgotten that, in the preliminary forms, his kinematics relate to particles of energy; and thus he really goes to the very root of dynamics, even when considering motion alone.

An instance of unsuccessful prediction is the elaborate computation of the change in the declination of the compass for various places and times, occupying the whole of chapter xvi, pages 69 to 149 of volume ii, and extended for Paris until the year 1920. These predictions have not come true. The north magnetic pole of the earth does not revolve, as Swedenborg supposed it would, from west to east around the geographical pole along the Arctic circle (incorrectly placed at  $22^{\circ} 30'$  from the pole) and in a period of 386 years; but the north magnetic pole is several degrees north of the Arctic circle, and it has remained very nearly stationary during the past century, or has revolved but a little way, while the sign of the declination change has been

reversed over considerable areas, leaving us in doubt whether the slight shifting of the magnetic pole may not also recede.

On the other hand, the present outlook in science decidedly favors Swedenborg's conception of the luminiferous ether, and also his doctrine of the constitution of matter as involving the inclusion of discrete orders of elementary particles, the active, or periodically motile flux or vibration of each component being, so far as we can judge, essential to the constitution and continuance of the next succeeding aggregate. There is also considerable evidence in favor of the view that magnetism is a flux of a special medium which may be Swedenborg's aura, though as yet we have no knowledge of any effluvium of iron accompanying this flow. Thus magnetic induction is defined by Maxwell as a flux, or flow with reference to an area, and one which must satisfy conditions of continuity ("Electricity and Magnetism," art. 428).

Swedenborg, though possessed of unusual gifts as an inventor and discoverer, as may be seen by his achievements in such diverse fields as the invention of the first mercury air-pump, the planning and construction of the first ship railway, and the discovery of the motion of the brain, apparently made very few experiments with magnets himself, but was content, as has been noted, to found his magnetic theories on the experiments of Musschenbroeck, which were carefully made, but did not advance the subject much beyond the point at which Gilbert had left it. Musschenbroeck measured the attraction between magnetic bodies by means of a balance, but did not succeed in getting consistent results, because he continued to use spherical magnets, or "terrellas." The strength of a magnet increases with the separation of its poles, which was very small in these spherical magnets. No knowledge as to the true laws of the magnetic force could be obtained by these ill-devised experiments. Moreover, the lodestones used were not homogeneous, so that the distribution of magnetism was far from symmetrical with respect to the center of

figure. A first approximation to the law of magnetic force was made in 1760 by J. Tobias Mayer; but it was not until Coulomb substituted long and slender magnets of homogeneous material for the clumsy terrellas that accurate data were forthcoming.

Coming now to the constitution of the entities out of which natural media are formed, to paraphrase and condense Swedenborg's lengthy specifications, we may say that an elementary particle of a given order (and the same is true *mutatis mutandis* of any other order) consists of an interior space which is not a plenum, but is occupied by intensely motile, or active particles of a higher order, relatively far apart, enclosed in an elastic spherical shell of finites, or particles which are arranged in close array, which are kept in connection by mutual polar attraction, and are not engaged in overcoming resistance, this duty being left to the actives. Thus the superficial finites are exteriorly passive, although including an internal or latent constituent energy which gives them inertia and resistance, and the primitive particles also possess polarity, so that they are arranged in a spiral manner and cohere along superficial lines of flow into which they are driven by the perpetual activity of the sphere of actives within the shell.

As to the ultimate reality of this activity, it is a never-ceasing energy which can not be destroyed but which gives perpetual internal motion from an infinite source. The nature of this internal energy can not be explained mechanically. It is a perpetual Divine miracle and the ultimate origin of nature. This conception may be illustrated by the chemist's atom with its perpetual whirl of electrons, or particles of negative electricity, entities which are intensely active and very likely enclosed in a shell of positive electricity, the relation of shell and contents being one of complete opposition in which there is nevertheless an overwhelming attraction of opposites that holds them together.\*

\* "These twin-born entities, which are so adverse to each other, coalesce into one figure," says Swedenborg of a different element, but one involving the same principle (see vol. i, p. 158).

The form of motion is only known in respect to a few of the minor details. Swedenborg's attempted solution of the motion problem is incomplete, nor would it be practicable, even if correctly worked out, except with the proviso that the motile particles flow in a perfect vacuum and that the distances between the particles are relatively large so that there is little interference. But the modern kinetic theory of gases assumes almost such a distribution, the gaseous molecules being rather widely spaced, and yet even here the prime necessities of vortex motion must be taken into account.

Swedenborg's theory of the constitution of matter calls for vortex particles of two orders. These, however, are much farther back than the vortex-atom of Lord Kelvin. The more compounded particles, to which we now give the names of electrons and atoms, resemble little worlds and are all perfect spheres in Swedenborg's system. Science makes no positive assertion on this point but inclines to the same view, the difficulties in the way of the "vortex-atom" having so far proved insuperable.

The theory of vortices in a continuous medium requires that minor component portions, or particles, shall have motions of translation as well as of rotation. If the motion is entirely continuous, the particles must be in contact by their similarly rotating polar apices forming a chain called a vortex-line, as in the disposition which Swedenborg predicates for his surface finites. But the actual path of a particle in a fluid mass, which is called a stream-line, does not necessarily coincide with a vortex-line, that is to say, there will only be coincidence if the motion of translation of the particles is in the direction of their polar axes. In the ordinary derivation of the proposition of the constancy of mean angular velocity in a cross section, multiplied by the sectional area, this identity of stream-lines and vortex-lines is implied. Swedenborg avoids the difficulties of the vortex theory in his primal particles by dispensing with any continuous medium and endowing the particles with inherent energy and interiorly guided motion. His primal

particles occupy space, or perhaps we should say they produce the first rudiments of space; but they are particles of pure energy, expansile and contractile, breathing in the atmosphere of the spiritual world; or they are like little hearts whose systole and diastole are governed by Divine creative energy so that their beating never ceases. Their motion is indestructible because it is from a Divine source. Science says today that energy is indestructible, but knows not why. These primal particles may meet and be deflected by mutual contact, but remain always independent. They can be arranged in lines which are both stream-lines and vortex-lines by being placed with poles of opposite polarity, or equivalent rotation, in contact, but if meeting under any other presentation, there is repulsion.

One mode of visualizing the production of a composite elementary particle which comes nearer to a mechanical system, is to consider that each particle is formed by the motion of a center of force along a reciprocating spiral whose ultimate circumference is always of the same size. The axis of the spiral motion is itself in perpetual motion between the limits or along the limiting surfaces imposed by two polar cones which give the first differentiation into a duality, causing each particle to be a bipolar particle. A further distinction is then made into two sorts of particles—the active particle in which after each cycle the motion returns to a different point which is in the circumference of a circle of larger dimensions than the generatrix, and a passive particle in which the cyclic motion always returns to the same point unless the particle be displaced by contact with an active. The dimensions of these two, namely the passive particle and the generatrix of the active particle, are assumed to be the same, and the diameter of a primal particle may be taken as the unit of linear dimension. This conception may be compared with the conclusion at which Planck arrives, namely, that the connection of various physical properties implies a fundamental natural unit of linear dimension of excessive minuteness having an approximate length of  $4.03 \times (10)^{-33}$  cm.

The active particles are not in contact except momentarily, and the recurrence of these contacts being conditioned by the period of cyclic flow, there is also a natural unit of time which according to Planck is  $1.34 \times (10)^{-43}$  sec.

The internal actives by their motions impel the surface finites, but the latter control the direction of motion by the necessity that they shall be arranged in stream lines. The passive particles flow slowly in a form of the second order, where a shell of passives is kept spinning by the congruous motions of enclosed actives. The latter are free until conjoined with passives. Here we are dealing with stream-lines, but the theory is less hampered than the hydrodynamical one of vortical motion in a continuous incompressible medium.

With higher degrees of compounding and fewer degrees of freedom, stream-lines of polar particles can no longer be arranged, but instead there is contact between the spheres of influence of aggregates which derive their property of elastic resistance from the included energy. Thenceforward there is further compounding of spherical particles. Of the three orders of elementary particles—magnetic aura, luminiferous ether, and air—it seems reasonable to suppose that the last includes particles of its two predecessors, though probably in a modified form, as component actives of a lower degree than those of the primal particle. Finally, in the progressive stages of gaseous condensation there are molecules, complex molecules and spherulites (the last being initiators of crystals), molecules giving fluted spectra consisting of groups of lines, and complex molecules producing diffuse, irresolvable absorption-bands; ending with three lowest orders of material aggregates—the gaseous, liquid and solid states of matter.

Little evidence can be found of interior spiral motions as the immediate form of the revolutions of the electrons, although there are relations between the periods of members of a group of electrons within the atom which can be expressed in some cases by just such spiral equations as

those mentioned by Swedenborg, especially in molecular spectra where the electrons of paired atoms seem to exert a mutual influence which can be represented mathematically by equations of this sort. Thus Mr. George Higgs, in studying the sequences of the remarkable paired lines in the oxygen-bands A and B of the atmospheric spectrum (first described by Langley in 1878 in the *Proceedings of the American Academy*) found that the relation between the wave-lengths of the lines in each band could be represented by four parabolas (connecting the wave-lengths of as many interlacing series of lines) of the form

$$\lambda = A + b n^2,$$

which is the formula proposed by Deslandres, where  $\lambda$  = wave-length,  $b$  = the semi-constant second difference,  $n$  is the order of the line, and  $A$  is the wave-length of the first line of the series. The agreement of the predicted and observed positions is only approximate, and a better formula is

$$\lambda = O + b (n \pm c)^2,$$

where  $O$ , the origin, is the vertex of the parabola, but does not coincide with the first line, and  $c$  is a constant.

Professor G. Johnstone Stoney has attempted to express the orbital motions of the electrons for the oxygen groups in a more realistic way, and finds that by the compounding of oppositely rotating spirals of diminishing amplitude which give the red and violet components of the pairs of a train, the resultant is an exceedingly elongated ellipse subject to the following perturbations: (1) Decrease of amplitude; (2) diminution of periodic time; (3) slow apsidal motion opposite to the orbital revolution of the electron; (4) a slight fluttering motion, like nutation; (5) a further slight secular change in the form of an ellipse.

The "head" of an oxygen group also "arises from an elliptical motion subject to perturbations, the chief differences being in the law connecting the falling-off of amplitude and the periodic time; that the quick fluttering pertur-

bation is absent; and that the apsidal motion takes place in the opposite direction. In oxygen the strength of the lines of each subgroup fades out towards the red. When the fading is in this direction, the periodic time decreases as the amplitude [major axis of the electron orbit?] falls off." As to the real width of the lines, so far as this is not apparent and due to a Doppler effect, Stoney attributes it to "the interchange of energy between the molecule and the ether. This leads to diminished amplitude; and this reduction of the amplitude may be accompanied by either a reduction, or an increase, or a persistence unaltered, of the periodic time, according to the way in which the motion of the electron is dynamically associated with the rest of the events which go on within the molecule." In this way the shadings of the spectral lines are explained as due to radiation, while the groups of fading lines or banded spectra are attributed to "transference of energy from one motion within the molecule to another" by conduction.

This example illustrates the intricacy of the motions of the electrons and the great changes which take place in their regular orbits when atoms are paired. The spiral, or parabola, or whatever the function may be, which connects the members of the series, is a mathematical expression of these complex relationships, but does not exhibit the actual paths of the electrons. Nevertheless, it is conceivable that the function (spiral, or otherwise) which denotes the interaction of the electron orbits, partakes of the nature of a more deeply lying dynamic mechanism; and this is precisely Swedenborg's theory.

The existence and nature of a spiral motion in entities anterior to the electrons may perhaps eventually be made known by further study of the relations between the revolutions of the electrons within the atoms. Kayser and Runge in a series of memorable memoirs,\* have determined the constants in a formula which expresses the relation

\*"Ueber die Spectren der Elemente," aus dem Anhang zu den Abhandlungen der Koenigl. Preuss. Akademie der Wissenschaften zu Berlin: 7 parts, 1888 to 1893.

between the frequency ( $1/\lambda$ ) and the numerical order ( $n$ ) of the members of a series of spectral lines

$$1/\lambda = A - b n^2 - c n^4.$$

For many of the elements there are three distinct, but related, series of spectral lines, the components of each series being often distinguished by some special quality. These are called principal, first subordinate, and second subordinate series. But there are some lines which do not permit themselves to be grouped in orderly harmonic sequence. These free lances of the spectroscopic host are the most difficult to deal with. They seem to have an intermediate, or connective office in some cases, but in others they defy classification. Until these wanderers are brought into their true relation with the law-abiding ones, there can be no rational treatment of the subject. The adopted formula has an affinity with a fundamental equation of energetics, and the relation in question between the progressively varying spacing of the lines strongly suggests spiral motion of some sort. Moreover, in some cases, notably in the cyanogen spectrum, the spiral indicated is a limited, or recurrent one, perhaps belonging to the sinusoid series, for the linear groups have both a "head" and a "tail," that is, they begin with strong lines, open out their spacing and at the same time fade away gradually through a long succession of members, and then increase in strength and crowding to a final limiting wave-length. (Compare A. S. King, "Some New Peculiarities in the Structure of the Cyanogen Bands." *Astrophysical Journal*, vol. xiv, p. 323.)

A motion of this sort would seem to be the one for which Swedenborg was searching, but his attempts to develop its geometry are not particularly successful. Measuring successive radii ( $r$ ) in inches on his figure 1 (p. 118, vol. i), we have

$\theta =$	$9\pi$	$8\pi$	$7\pi$	$6\pi$	$5\pi$	$4\pi$	$3\pi$	$2\pi$	$\pi$	0
$r =$	.92	.84	.81	.71	.63	.54	.45	.32	.19	0
$d =$	.08	.03	.10	.08	.09	.09	.13	.13	.19	

The series was probably intended for the following one:

$\theta =$	$9\pi$	$8\pi$	$7\pi$	$6\pi$	$5\pi$	$4\pi$	$3\pi$	$2\pi$	$\pi$	0
$r =$	.86	.85	.82	.77	.70	.61	.50	.37	.22	.05
$d_1 =$	.01	.03	.05	.07	.09	.11	.13	.15	.17	
$d_2 =$	.02	.02	.02	.02	.02	.02	.02	.02	.02	

It is evident that the intention was to make the radii vary according to a series of squares whose second differences are constant and equal to two. This also appears in the sentence at the bottom of page 119: "In this manner we may compare the spiral with the parabola, whose ordinates and diameters are in a duplicate ratio, or in the ratio of a given number or line to that number or line multiplied into itself, or of its square to its cube." Overlooking the blunder which confounds a duplicate ratio with that of a square to a cube, the mention of duplicate ratio is significant. Moreover, figure 2 (in which is an arc of a circle of about 1.7 inches radius) though mentioned as if the arc had been obtained from the spiral of figure 1, does not seem to have been so constructed; but from the context we may surmise that the figure actually employed was a parabola and that radii for equal values of the angle  $\theta$  in the spiral were read from equally spaced parabolic ordinates. The spiral of fig. 1 of the "Principia" is therefore a parabolic spiral

$$r^2 = a \theta.$$

It should be noted, however, that the parabolic spiral is not the one required by the demand that the curve shall have an external limit and shall also represent a reciprocating motion. The parabolic spiral has no limit, because the parabola has no asymptotes. On pages 120 to 122, the author while continuing to speak of "duplicate ratio," appears to become confused in his argument and substitutes the spiral of Archimedes, in which the *first* differences of the radii are constant, in place of the parabolic spiral. The spiral of Archimedes is equally destitute of any limit, and the specification that the motion must be reciprocating is not met, but requires some such variety of curve as the sinusoid spiral.

The kinematics of the problem can be successfully met, but difficulties multiply when we come to the dynamics of the initial elementary particle. For example, no cause is assigned for the precessional motion of the orbital plane of spiral circulation, and the precession, as well as the reciprocating motion of the spiral, must be assumed to be inherent.

Swedenborg's arrangement of his "particles of the tenth kind" (*Minor Principia*, n. 165, fig. 99, p. 520, vol. ii) immediately suggests the Bravais "space-lattice" whose existence in crystals has recently been so brilliantly confirmed by Lane through the diffraction pattern produced by the Roentgen rays after penetrating crystals of zinc blende.

There are some incongruities in minor details, as, for example, in n. 45 of the "Minor Principia" where Swedenborg says that "the heavier matter seeks the center and the lighter the surface," apparently forgetting that in his primal particles there is as yet neither "light" nor "heavy," as the author admits in n. 54 (unless possibly he may be using these terms somewhat metaphorically, as our modern electrician speaks of the "density" of his lines of electric force). Other instances of unusual freedom in the use of language may be noted, as where converging lines are said to be "parallel in respect to compression. . . . The reason is that there is the same amount of pressure at every point of such a line," which appears to be a description of a constant pressure-gradient; compare also the repeated confusion of "circular" with curvilinear motion.

I have taken the liberty to identify Swedenborg's "*conatus*" (effort) with energy in the modern sense. No objection can be taken to its implied spiritual origin. The distinguished Alsatian philosopher, Gustav Adolf Hirn, whose able treatise on Thermodynamics gives him the right to speak on the subject, remarks that we have no conception of the nature of force, or energy, which is not derived from its resemblance to the human will. ("La Notion de Force dans la Science Moderne.")

The description of the third particle in the "Minor Principia" admits a passage of superficial particles of the first sort down *both* polar cones to the center where they may accumulate with apparently very little tendency to return into the surface, thereby endangering the perpetuity of the particle. The supposition is entirely unnecessary, for nothing prevents the passage of superficial particles from one pole to the other along a central aperture of the vortex-ring by a continuous spiral revolution, a view which was taken later in the larger work, and the author says no more about a central aggregation in primary particles.

The "Minor Principia" makes space at first "a kind of simple plenum" of particles of the third kind. The device of central aggregation of primary particles by contraction of the superficies and a squeezing out of the actives seems to have been adopted in order to get local accumulations of free actives from which to derive elementary particles of the next higher order, and also (n. 63) as the origin of the sun itself, but in the final form of the hypothesis the sun is placed farther on in the series. In this first draft of a cosmical theory we learn that "as to the rest of the stars, seen to maintain a fixed position in the celestial hemisphere, they seem to have originated from the sun or star of our own mighty vortex"—a statement which demonstrates that at this time the author had a totally inadequate conception of the magnitude of the stellar universe, and had entirely failed to grasp the idea that our sun is only a minor one, lost among the myriads of the starry host. Later, however, he abandons his earlier misapprehension and rises to a most majestic view of the Milky Way as the "magnetic" core of a galaxy of suns, and foresees that there may be other galaxies in endless progression. (Principia, part iii, chap. i, nn. 8 and 11.)

The following passage in the "Minor Principia" (n. 64) contains the extraordinary statement that one star may increase at the expense of another, abstracting its active substance by way of the imagined polar flux:

If, then, one star begins to increase, as stated, the attenuated matter, somewhat extended, flows into that greater source; and, when this is increased, it acquires a greater power of setting up its own gyration, and in this way it deprives the neighboring star of its supply of material, and, consequently, it will entirely perish as a result of the successive growth of the nearest star. (*Op. cit.*, p. 383, vol. ii.)

This version of a stellar warfare, one star robbing another of its substance to be itself robbed in turn—this teetering up and down of bodies which are supposed to have a majestic stability—this conception of “the prince and the pauper,” or a “struggle for existence,” extended to the very sources of planetary welfare, can hardly be recommended to astronomers as a plausible reason for the phenomena of variable stars. It is only fair to state that there is no further trace, in the work finally published by Swedenborg himself, of this curious hypothesis whose appearance at the present time will not increase Swedenborg’s prestige as a man of science. The incident is of interest as showing that Swedenborg was sufficiently human and fallible to make mistakes. Fortunately, he was also wise enough to recede from a false position.

There are a few blemishes which are reflections of the opinions of others. Such is his casual allusion to sun spots as “erratic bodies straying around the sun” (p. 184, vol. ii.). Scheiner, who independently discovered the spots on the sun in 1611, soon after their first discovery by Galileo, and also Fabricius, imagined that they were planets moving near the sun’s surface; but afterwards yielded to the evidence brought forward by Galileo showing that they were spots *on* the sun. Swedenborg appears to have known only of Scheiner’s earlier work.

The doctrine that the sun is a gigantic “active” leads our author to the supposition of a vortex external to the sun and of planetary vortices which “float in the vast solar vortex” and “follow the flow of the particles and adapt themselves exactly to their situation.” (*Minor Principia*, n. 71, p. 395, vol. ii.) This idea was borrowed from Des

Cartes and had been already overthrown by Newton.\* Its demolition has been completed by the discovery of comets and satellites which do not "follow the flow" of the supposed vortex.

The new science of spectroscopy tells us that there are metallic atoms not merely in sun spots where Swedenborg places his "fourth finites," but also everywhere throughout the glowing orb. The sun's mean density (1.4 times that of water notwithstanding expansion by intense heat) implies matter of a dense sort. Hence the statement: "It is undoubted that the sun consists of extremely attenuated matter" (*Minor Principia*, n. 63, p. 381, vol. ii), is completely overthrown, and Swedenborg's undifferentiated active particles of the second finite, which are supposed to have the most perfect similarity, and of which, together with actives of the first finites, he says "the solar ocean seems to consist" (*Principia*, part i, chap. vii, n. 20, p. 206, vol. i), precede by several stages the formation of metallic atoms.

Though asserting that light is an "undulation" and at the same time a centrifugal emission of ether particles, the "*Minor Principia*" (nn. 114, *et seq.*) does not define the motion, and the analogous statement does not constitute a definite prediction of the doctrine held today. On the other hand, in the midst of much obscurity in respect to the simpler phenomena of light, we find such a brilliant suggestion (shall we call it a guess, or a flash of insight?) as this: An undulation of small amount in particles of the *electric* medium, or ether, moves the interwoven particles of the *magnetic* aura to their very cores. The mode of motion is not specified precisely, though one might infer that the magnetic part would be vortical, but the mere fact that

\*It has been said that until some fifty years after Newton's time, there were probably not more than two or three who knew what this great thinker was talking about. Our author was not of this number, but possibly the circumstance was providential, since he may have been thereby prevented from being overwhelmed by the enormous prestige and authority of this great master, and thus saved from falling into some of Newton's errors.

light is described as an *electro-magnetic movement* is certainly extraordinary.

Besides this, Swedenborg attributes to light a *pressure* which has only recently been confirmed by the discoveries of Lébédéff in 1900, and of Nichols and Hull, but with a difference. It must not be supposed that the light-pressure is from momentum of the ether due to the linear velocity of its particles in transit; because the unilluminated ether has no mass wherewith to obtain momentum; but there is added to the ether a temporary mass per unit of volume which is that of the rotational oscillation of its particles in which the radiant energy consists. This, as Maxwell demonstrates, produces a feeble pressure proportional to the radiant intensity. It is now supposed that the minute luminous particles in the tail of a comet are pushed away from the sun by the pressure of the sun's rays; for although Barnard failed to find any acceleration in the motion of knots in the tail of Morehouse's comet, Halley's comet has given certain proof that the acceleration demanded by theory exists. (See Percival Lowell, "Motion of Molecules in the Tail of Halley's Comet." Lowell Observatory Bulletin, No. 48, 1910.)

Another remarkable approximation to our present knowledge of the constitution of matter is seen in the figure ascribed by Swedenborg to an air particle, or to what we should now call an atom. Enclosed in an excessively thin spherical shell of passive particles (which we have reason to believe are least particles of positive electricity) derived from the ether by two successive modifications, is a volume of actives (or as we should now say "negative electrons") together with *bullae* which only differ from the atom by their small size. Now the denser radio-active atoms are found to undergo progressive simplification through the expulsion of helium atoms at high velocities. If it is permissible to suppose that the light helium atoms are of relatively small size compared with heavy atoms, and that they exist already formed within the larger atoms, Swedenborg's internal *bullae* may be helium.

The enclosed actives are supposed to consist of particles of the magnetic element in spiral motion. Here a slight exception will have to be taken to the form of the statement, because the electrons, which represent the enclosed active element, revolve in circular, or elliptical, and exactly timed orbits, whereas a spiral motion will give varying frequencies in its successive revolutions with changing radius. The orbital motion of the electrons must, it is true, be accompanied by a vertical flow of the magnetic element and a general magnetic field. Apart from these modifications which are now seen to be necessary, the supposition is in excellent agreement with recent discoveries. Except in the atoms of magnetic elements, the electrons revolve in two groups with opposite vectors, and the right-handed and left-handed revolutions produce opposing magnetic fields which approximately annul each other; but such substances as iron and nickel have atoms in which most of the electrons revolve in the same direction. The dynamics of these opposing revolutions await solution and form a problem of great difficulty, but the existence of the motions cannot be doubted. If the above analysis of the structure of the atom is a fact, we have one more illustration showing that every complete form is a trine, the atoms including subatoms (the universally present helium), and these in turn conveying and convoying the electrons—particles of three different orders of magnitude, but all agreeing in being electric and possessing mass.

Swedenborg supposes that his air particles are elastic and expand when pressure is removed in a ratio of the diameters of possibly eighteen to one. We have no certain knowledge on this point. Elastic they must be, but whether expansible through a considerable range is doubtful. Two or more atoms unite to form a molecule which occupies twice the volume of a monatomic molecule in spite of complexity. We may suppose either that the atoms are compressed on entering a complex molecule, or else that the surfaces of the atoms are never in contact and are relatively far apart, though considerably closer together where many atoms unite

to form one molecule. The last supposition agrees best with molecular analogies, for the dimensions of the molecule are quite constant and rarefaction consists in separation of the molecules and increase of their free path, but not in an expansion of each individual molecule. Moreover, Swedenborg's hypothesis that the *bullae* increase under pressure implies (on the assumption that the *bullae* are internal subatoms of helium) an alteration of atomic properties or the production of new atoms, since each expulsion of a helium atom from one of the radio-active elements is attended by the formation of a new element, while the transformation does not seem to be affected by any change of pressure that can be brought to bear in our laboratories.

Even more improbable, or rather impossible, is the odd suggestion that after the last degree of compression into unyielding spherical particles, which are those of water, these have been broken up by still greater pressure in the depths of the sea into angular fragments which are the least particles of various mineral salts. In the face of such an astounding proposition we have to shake ourselves to recover the recollection that this was before the days of chemistry. Yet out of this suggestion which today, in the blaze of light from chemical discovery, would be positively foolish, there emerges under Swedenborg's skilful manipulation the first rudiments of stereochemistry, and a stereochemical explanation of crystalline forms, a skeleton ready to hand to be infilled with living facts through the enormous expansion of knowledge in respect to atoms, molecules and crystals, and by means of the powerful polariscopic, spectroscopic, magnetic, chemical and crystallographic processes which have arisen in recent times.

The magnetic flow is vortical, and not spherical, according to Swedenborg, because

the motion among the elementary particles not only is propagated and extended according to the form and natural arrangement of the parts, but it also terminates in them. Because among the elementary particles, every part, as we have before stated, contributes its share to the motion and form of motion in the volume; it follows

that the volume of the particles can not be moved, or determine the form of its motion, in any other way than the individual parts allow. Hence the motion of the volume must be perfectly in agreement with the motion and form of the parts. If the elementary parts were exactly spherical, the motion would spread itself around into the form of a sphere, and describe perpetual circumferences equidistant from the center. (*Principia*, part ii, chap. 1, n. 3, p. 236, vol. i.)

This passage indicates that the particles of the universal magnetic aura were assumed to be vortices because of the shape of the magnetic phantom; and the last sentence shows why Swedenborg modified his first conception of the form of the ether particles and decided that they must be spherical. It was because light is propagated in spherical waves. According to the same analogy, since the electrons are the least portions of matter which possess mass, and since gravitation is propagated spherically, the electrons must be spheres and the slight differential strain in the aura passes out equably in all directions from their originating spherical surfaces.

"The elementary particles are both active and passive, since they partake of both principles; they are apt and ready for motion: consequently if the magnetic particle be free, they give it an axillary motion" (*Principia*, part ii, chap. i, n. 11, p. 247, vol. i). This reverses the usual mode of looking at the matter, which is to regard the revolution of the electrons as generating the magnetic field, or flow of the magnetic element; but if the perpetual electric revolutions represent a perpetual influx of energy, it may be proper to say that the energy is received first by the magnetic flux and transmitted thence to the electrons to maintain their motion.

Instead of the exceedingly artificial conception of "effluvia," or magnetic particles emanating from iron which are coarser than the particles of the magnetic element and in which the latter have bored holes by their "perpetual flow and reflow" (*Ibid.*, p. 246), we are fortunately able to substitute the elegant mechanism made known through the study of the Zeeman effect. The effluvia are said to be contin-

ually emitted though in no great quantity (*Ibid.*, p. 253) and to flow around the magnet with the magnetic element in the figure of the magnetic phantom, the axes of the vortices being "inflected in agreement with its curvature" (*Ibid.*, p. 252). It can not be denied that some material emanation from the iron may accompany the magnetic flow, but none has ever been demonstrated.

Swedenborg, though strongly influenced by the "fanciful, arbitrary, and really indefensible, but most ingenious theory" of René Des Cartes, rejected the planetary capture hypothesis of the latter, and substituted the doctrine of the rupture and expulsion of a cooler external shell by pressure from within and its coalescence into planetary spheroids which gradually receded to their present position. Omitting the idea of control by a vortical flow (borrowed from Des Cartes) the supposition has much to recommend it. For the crude notion of a whirling chaos of dust whose solid particles have their angles worn off by attrition, forming other "elements" composed of finer dust, which had been promulgated by Des Cartes, Swedenborg substituted a vastly more refined conception of matter as consisting of energy and motion in discrete degrees. With Leibnitz he asserted the primitive molten condition of the earth, an idea which is still widely accepted, and which has indeed but one rival, namely, Chamberlin's planetesimal hypothesis.

Of present-day hypotheses of planetary development, there are four which have appealed to the writer more or less:

*a.* Lockyer's meteoritic hypothesis\* which, as Sir George Darwin has shown, removes some of the objections to Laplace's hypothesis.

*b.* Chamberlin's hypothesis† of the tidal disruption of two suns during a close approach, the fragments being subsequently gathered together "planitesimally."

\* "The Meteoritic Hypothesis," by J. Norman Lockyer, F. R. S., pp. 560. Macmillan Co., 1890.

† T. C. Chamberlin. "On a Possible Function of Disruptive Approach in the Formation of Meteorites, Comets and Nebulæ." *Astrophysical Journal*, vol. xiv, p. 17-40, 1901.

c. Very's hypothesis‡ of the formation of planets by a series of explosive disruptions produced by disintegration of unstable atoms.

d. Sutherland's hypothesis that the planets have originated through the starting of stationary vibrations in a rotating discoidal swarm of meteorites, so that a definite number of equal segments are formed with radii of the equatorial rim as nodes.

Chamberlin's is an attractive hypothesis, but is open to some objections, since (1) though it is difficult to decide absolutely as to the density of stellar crowding, and though the star density in the Milky Way is much greater than in the sun's neighborhood, probabilities are rather against so close an approach of two stars as is required to accomplished the result—at least it should be a rare event. (2) The spiral nebulae, to which appeal is made as illustrations of the process, are quite beside the mark. They are on an enormously larger scale and must represent an entirely different phenomenon. (3) The hypothesis contains no suggestion of any way by which the harmonic relations in the planetary distances and revolutions could have been brought about, but, on the contrary, complete irregularity is what might be anticipated instead of the peculiarities of Bode's law. (4) The Chamberlin hypothesis seems to require the existence of a large number of "dead" suns, if production of planets is to be a common occurrence, for the need of greater crowding than appears among the lucid stars is obvious. The dead suns are supposed to either collide or suffer disruption and development of intense heat on their near approach to each other. The supposition is objectionable because the number of luminous stars in the Galaxy is already great enough to account for observed stellar motions through the action of mutual gravitation.\* A notable in-

‡F. W. Very. "A Cosmic Cycle." *American Journal of Science*, Ser. 4, vol. xiii, p. 47-58; p. 97-114; p. 185-196. 1902. A French translation appeared in *Ciel et Terra*, 23 Année, Nos. 1, 5, 6, 9, and 10, 1902.

\*See F. W. Very, "Stellar Revolutions within the Galaxy." *American Journal of Science*, ser. 4, vol. xvi, p. 127, 1903.

crease in the number by the addition of numerous invisible dead suns would require velocities in excess of those observed.

Lockyer's hypothesis seems to the writer to have much in its favor as an explanation of the primal stages of a new sun, but it has nothing to offer which is satisfactory in relation to Bode's law.

The unsatisfactory agreement of previous explanations with astronomical data led to the third suggestion by the present writer. The objection that such a thing as atomic disintegration was unknown was immediately urged, but was quickly removed through the discovery of the breaking up of radium with enormous evolution of heat, far exceeding that by any other known process. Since helium is one of the products of the disintegration of the radio-active and unstable elements, the presence of large quantities of helium in actively developing stars is favorable to the doctrine. The process, instead of being a very rare one, should be an inevitable stage in the development of every star. The hypothesis indicates the probability of successive recurrent episodes regulated by alternating processes which account for Bode's law. Equally with Swedenborg's hypothesis, this explosive explanation predicts "a long-drawn-out spiral trajectory [from the compounding of repulsive and circulatory forces], leading to an ultimate nearly circular orbit." (F. W. Very. "A Cosmic Cycle." *American Journal of Science*. ser. 4, vol. xiii, p. 110, 1902.)

The hypothesis of William Sutherland (*Astrophysical Journal*, vol. xxxiv, p. 251, 1911) assumes a collapsing and rotating meteor swarm of spheroidal shape which subsequently develops into a disk, because rotation prevents collapse at right angles to its axis. Through the collision of two oppositely revolving meteorites of equal mass and velocity, a body of zero velocity and a radial fall towards the center of the swarm must sometimes occur.

We may designate this radial path as a spiral of zero spirality, and the circular path as one of infinite spirality. We see that the

radially falling body will get circular motion imparted to it by collision, and thus we arrive at an average path between circular and radial, namely, a spiral of finite spirality. (*Op. cit.*, p. 254.)

Through gravitational attraction "the spiral tracks coalesce into fewer ones of higher meteoritic concentration." It is surmised that there may be a tendency to reduce the number of these tracks to two which are symmetrically disposed, but no reason is assigned for the reduction to only two. Swedenborg's assignment of polarity to elementary particles and to stellar orbs may be invoked to account for the arrangement of parts in a magnetically controlled stream-line in which individual axes are parallel to a spiral which is a function of the cube of the distance; in fact the exhibition of this function alone is sufficient to indicate that the controlling force is magnetic.

Given the discoidal swarm and its spiral core, the segmentation of the disk by imposition of a stationary vibration breaks up the included spiral as well into parts which are finally left to revolve in nearly circular paths whose intervals are related according to successive radii separated by angle  $\theta$  in a logarithmic spiral. Applying the theory to a nebula in which stars take the place of meteorites in an arrangement on a much grander scale, the nebula Messier 100 Comae gives

Angle $\theta$	0	$\pi/2$	$2\pi/2$	$3\pi/2$
Radius in first spiral branch	4	5	8	11
" " second "	"	5	9	
Mean radius	4	5	8.5	11
Calculated radius	4	5.6	8	11.2

The law of Titius, commonly known as Bode's law, may be explained as a special case of this process; but the cause of the assumed stationary vibration remains undetected, and, in addition to the contracting assemblages which are alone considered, there are also expanding and dispersing throngs.

Swedenborg's theory of the universe of stellar systems, though it has occasionally received doubtful commendation

by a very few astronomers as a possibility, rather than a probability, and though the conception has been clothed in glowing rhetoric by the poetic fancy of John Paul Richter, is still practically rejected by science. One of the most recent treatises on astronomy ignores Swedenborg so completely as to speak of "one feature that is common to all theories of the Universe, that it is greatest and richest and most extended in the Galactic plane."\*

The human mind has ever found it difficult to realize either the majesty of the infinitude of God or the greatness of His works. "The world" to the ancient Greeks was a little corner of southeastern Europe. The knowledge which the ancient Egyptians once had of the dimensions of the solar system was so far lost that shortly before the Christian Era, the Greek geographers had to begin all over again by estimating the size of the earth in the crudest manner. Later, the Copernican theory was fought because it demanded that the stars must be at distances inconceivably great; and today, when asked to step outside our Galaxy of stars, the modern astronomer demurs that the "Universe" is identical with the Galaxy. Even so highly imaginative an astronomer as M. Henri Poincaré (in a letter to the writer) declined to take this step.

The opinion of the English philosopher, Herbert Spencer, that the nebulae are an intrinsic part of the Galaxy, has undoubtedly retarded the acceptance of the true doctrine.

\*"Astronomy," by Arthur Hinks, M. A., Chief Assistant, Cambridge Observatory, 1911 (p. 222). The writer of the present notice, in a paper read at the Boston meeting of the American Association for the Advancement of Science in 1909, demonstrated that the white nebulae are galaxies at a distance immensely exceeding that of the stars composing our Milky Way. A portion of this evidence has since been published in the following papers: "Are the White Nebulae Galaxies?" *Astronomische Nachrichten*, n. 4536, Band 189, s. 441-454, November 1911. "On Stellar and Nebular Distances." *Knowledge*, vol. xxxv, n. 530 (September, 1912) pp. 329-332; and n. 531 (October, 1912) pp. 373-376. "What becomes of the Light of the Stars?" *Popular Science Monthly*, vol. lxxxii, pp. 289-306, March, 1913.

His argument was that "the stars and the nebulae, just because they seem to avoid one another, must for that very reason be opposite parts of one system." I quote again from the recent work just cited as fairly representing current opinion. In fact Mr. Hinks, though admitting that "the immense growth of our knowledge since Herbert Spencer's day may have undermined the foundation of his argument" (*Op. cit.*, p. 225), and though recognizing that "the older views as to the distribution of the white nebulae require very considerable modification" (p. 227), still adheres to what is essentially the same scheme.\*

Similarly, what has been called the "grindstone" theory of the universe (dating from the star gages of Sir William Herschel), though obviously irrational, continues to have apologists. One of the latest of these is Professor G. C. Comstock, who explains that the stars are not really confined to such an artificial distribution as that of a disk-like aggregation indefinitely extended within limited distances on either side of an indefinite plane, but that we see farthest in the direction of the edges of the disk, because a certain region comprised between parallel planes is comparatively free from absorbent dust.† The existence of the Magellanic clouds requires explanation on this, as on any other assumption. These unique objects are a perpetual challenge to all artificial schemes. On the other hand, they fit admirably into the supposition that these are satellites of our Galaxy, just as Messier 32 and N. G. C. 205, by their vicinity to the great nebula in Andromeda, suggest the possibility that they may be satellites.

Wonderful as is the diversity of the sidereal system, a

\* "The near equality of brightness of the Milky Way all round its circumference seems to assure us that we are situated somewhere toward the center of the *visible* universe." (*Op. cit.*, p. 238.) When it is known that there are innumerable galaxies, this inference loses its significance.

† For a critical examination of this and other hypotheses, see my paper already mentioned, "What becomes of the Light of the Stars?"

principle of association runs through it all. There are relationships, resemblances, connectives, intermediate and transitional forms which, with the great fact of identity of substance and universality of law to its remotest bounds, binds the physical universe together into a consistent whole.

In one respect there has been a very notable advance towards the position which Swedenborg so long occupied alone in regard to the habitability of worlds. Misapprehensions in regard to the habitability of other worlds than ours have not been wanting among scientific theorists who ought to know better. Beings constituted precisely like man and the animals of this earth, would indeed most likely be unable to exist under the conditions on some of the planets in our solar system; but evolution, which modifies the bodies of animals slowly through ages of changing climate and many variations of physical factors, is competent to take care of such vicissitudes; and natural selection controls these bodily adaptations automatically.

Moreover, although the heating power of the sun's rays diminishes as the inverse square of a planet's distance, or in the ratio of over six thousand to one between Mercury and Neptune, the heat-retaining power of the planetary atmospheres varies through as wide a range, so that the planet Neptune by reason of the known extraordinary intensity of the absorption bands in its spectrum and their progressive strengthening for the longer waves,\* may conceivably have a warmer climate than the earth.† Further prognostication than this in the absence of exact data is futile; but enough is known to confirm the possibility of life under most diverse conditions.

Less than a century ago, Whewell wrote a book claiming to demonstrate scientifically that the other planets are uninhabitable. Our latest science, again allowing Mr. Hinks

\*See V. M. Slipher, "The Spectra of the Major Planets." Lowell Observatory Bulletin, No. 42.

†See F. W. Very, "The Greenhouse Theory and Planetary Temperatures." *Philosophical Magazine*, ser. 6, vol. xvi, p. 478, 1908.

to speak for it, has a decided tendency to reverse this unfavorable decision. "There is no justification whatever for asserting that modern astronomy assures us we occupy a particularly favorable, perhaps a unique position: not the slightest vestige of an excuse for concluding that our own earth, owing to that unique position, may very probably be the only abode of life." (*Op. cit.*, p. 238.) At last, science is ready to accept Swedenborg's statement that the planets are inhabited earths.

Swedenborg taught that the ether is devoid of gravitational attraction, as explicitly stated in "The Worship and Love of God," and that it forms shells which are attached to the planets and move with them; from which it appears that he conceived that the ether has a species of viscosity, since it could not adhere to the planets through any pressure of gravity.

The doctrine of successive media, or discrete degrees of substance, has never been accepted in science, although there are many indications of its truth. A partial exception should perhaps be made in respect to the ether which is regarded by many as distinct from matter. In Swedenborg's view, as we have seen, the ether is not a *continuous* medium, as in a still debated hypothesis, but is a structure in an antecedent medium, as yet scarcely even hinted at in science. It would be possible with a very little alteration of the converging doctrines to bridge the chasm between Swedenborg and recent science. There is nothing in either which excludes the other, but a strong affinity which needs only urging and further work, both mathematical and experimental, to become fruitful.

For example, Swedenborg postulates an ether particle as expanded to its utmost limits. With any further expansion the ether particle would burst and become merged in its antecedent medium, out of which it has been structurally differentiated. He then assumes that matter in its next degree is formed by a condensation of the ether. Now if, instead of this, we suppose that matter is formed from ether by the impressing of a rotation upon its particles, the

distinction between matter and the ether becomes one of limitation of another sort. For, whereas the ether particle is entirely free to take up any mode of vibration, being in this respect unconditioned save in having a limiting surface, the permanent impress of rotation upon this entity gives directional obstruction to all change that is not related to the rotational movement. The ether particles can receive reciprocating rotations of dimensions suited to their size, and thus pass out into light waves, thereby accepting temporarily a mode of motion which is related to that of matter. *Illuminated* ether contains energy and momentum which may be transferred. It can press upon minute material particles and set them in motion. Temporarily, the illuminated ether possesses mass; but the reciprocations are mutually balanced, and their energy may either be handed on to other portions of ether, or absorbed by electrons, leaving the primarily moved particles quiescent as before, and ready for new experiences of the same sort. By "quiescence" here is not meant a state of absolute rest, for the ether particle is the seat of most intense internal activity of its own untransferable sort, and is the embodiment of illimitable energy; but the unilluminated ether must be free from those modes of motion which constitute light and its final outcome, matter.

The first beginning of a formative mode of motion in the ether is luminous. We may suppose that the final ultimation of ethereal movement in free space is the electron, considered as a sort of electric vortex-corpusele (see F. W. Very, "The Conservation of Mass and the Passing of Matter," *Science*, N. S., vol. xxx, pp. 491-496, October 8, 1909; and "What becomes of the Light of the Stars?" *Popular Science Monthly*, previously referred to, vol. lxxxii, p. 289, March, 1913).

Shortly after the middle of the last century, the vortex theory of elementary particles, which had slumbered unnoticed in Swedenborg's pages, was for a time resuscitated. New forms of vortex motion were imagined, differing from Swedenborg's, and possibly in this respect improvements

on his. Some of these new forms can be compared experimentally with the coarser vortical forms which occur in fluids, and the comparisons are highly suggestive, even though nothing positively demonstrative has been discovered. The names of La Grange and Stokes, who had previously laid a foundation for the theory, and especially of Lord Kelvin, Professor Helmholtz, Sir J. J. Thomson and Professor W. M. Hicks will always be associated with this brilliant chapter in theoretical physics; but for the time being, the hypothesis of the "vortex atom" is in abeyance, its theory is neglected, possibly on account of its enormous mathematical difficulty, and apparently the supposition has been laid on the shelf; but the writer can not think that it will remain there permanently, and he looks for new discoveries which will rehabilitate the doctrine in some modified form, and bring it to the foremost place in both theoretical and practical physics.

The interpenetration of different orders of material existence is one of Swedenborg's characteristic doctrines. Each element, or atmosphere, is formed out of an antecedent one and includes it and all its properties as a substratum or foundation for every new differentiation. Thus the whole universe is a complex of interlacing forms, or rather, as Swedenborg puts it, there are successive orders of forms. The lowest angular or crystalline form is the most limited, or the least free to move. With the putting off of limitations, new freedoms are obtained, wider relationships are entered into, greater power is manifested, and finally, in the supreme natural form an order is reached which is so universal that it is an image of the spiritual, exhibiting wisdom and forethought which would be inconceivable if there were not, back of the natural, spiritual forces and media of communication with the highest source in the Divine.

Before closing, let us consider briefly the distinctive philosophy which underlies the whole of the "Principia," and gives it a unique position in the literature of science.

Other philosophies start in things, grope blindly in the

dark and stumble along towards a faint light dimly perceived in the distance. Swedenborg's philosophy begins by calling upon the name of the Lord; and by placing God at the center, it illuminates the remotest recesses of the created universe with a flood of light. By following the thread of a continuous rational principle, our philosopher safely penetrates the mazes of the labyrinth of nature. Reason is always placed first, "geometry" [mathematics] and experience follow after and confirm the deductions of reason. Great discoveries are sometimes attributed to the "experimental" method, and much can be surmised by one who walks with his eyes open; but the most potent means for opening the eyes is a rational hypothesis. This directs its possessor to seize upon the faintest indications of phenomena which would remain unobserved by any but the possessor of the secret clue. Probably if the whole truth were known, all great discoveries would be found to have been made by those who were led, either consciously or unconsciously, by an idea.

To illustrate: Swedenborg assumes the immanence of God. He is therefore prepared to recognize, two hundred years before the doctrine was accepted by science, the supreme position of energy in the physical universe, and to see in it the origin of all things in nature, including matter. Because God is infinite and all powerful, his vicegerent in the physical universe, which is energy, is indestructible by any finite agency. Man by his efforts may vary its modes. He can not touch its essence.

Recognizing that all things are connected with God and subsist from Him, we are prepared to admit that nothing exists by and for itself alone, but that all things are connected together and interpenetrate. The mass of a body is not a quantity confined to a limited portion of space, but is dependent upon the kinetic energy in the surrounding medium. So of all other forces, including those of mind. They emanate in spheres, proceed through media or atmospheres, coalesce or antagonize far from their sources,

and are only limited as to space and time in the sense that the human mind can not follow their ramifications. Swedenborg's doctrine of forms is the most inexhaustible and inclusive that has ever been propounded. That it should remain today practically unknown is a reproach to philosophy, if not to science. Philosophers are supposed to apprehend many things which are not yet ready for scientific demonstration, yet, strange to say, Swedenborg is hardly recognized by the "philosophers" as one of them, and it remains for the scientists to discover him. This they are beginning to do sporadically, and as the pressure of facts unexplained and inexplicable, save on his theories, increases, they will do so more and more. The selection of a dissertation on some of Swedenborg's brain-theories by Dr. Martin Ramström\* to commemorate the two hundredth anniversary of the founding of the Royal Academy of Science at Upsala by Swedenborg, Linné, Ihre, Celsius and others shows that Sweden is at last waking up to the merits of these epochal contributions to science.

Swedenborg's method has been called peculiar. It is indeed a new departure in science; but the method originated in a greater than Swedenborg. "Seek ye first the kingdom of God . . . and all these things shall be added unto you," says the voice of Jesus. It was new in science to begin with the acknowledgement of God, and from this as a center to deduce the principles of natural science. Henceforth religion and science are to be one. The conflict of the ages is ended.

The "Principia" teaches that, in penetrating into interior or antecedent phases of cosmic phenomena, motions of a more complex kind are encountered at each step, or discrete degree, of substance. Thus light and electricity are both assigned to the ether which is a corpuscular structure existing in an antecedent medium, the aura. The latter is discrete from the ether, and its motions are of a higher

\*"Emanuel Swedenborg's Investigations in National Science and the Basis for his Statements Concerning the Functions of the Brain," by Martin Ramstrom. 59 pp., 4 to. University of Upsala, 1910.

order. A rectilinear motion of an ether particle [we should now say of a *modified* ether particle, or electron] constituting a transference of electricity [which would now be called an element of electric current], and a combined oscillation and rectilinear propagation of an ether particle forming a luminous impulse, are each accompanied by a vortical, or more intricate movement of the magnetic aura; which is to be distinguished from the ethereal movement, although remaining its invariable concomitant. The invariability of the connection is asserted in the now universally adopted term "electro magnetic" which is used whenever a complete presentation of luminous or electric phenomena is desired. It is a legitimate inference from the fundamental position of energy, that back of the aura lies yet another atmosphere with a new degree of freedom whose aspirations constitute vital activity. Spiritual life demands still other atmospheres, each more complex or more universal; for each new departure of ascent approaches nearer to the source of power, and the inner degrees include the ultimate production of the outer as a part of their potency.

When kinetic energy is imparted from one portion of matter to another (or acts from the outside), it is shared equally between the giving body and the surrounding medium in the beginning, and the moving mass can in no case transfer more than its own share of the kinetic energy ( $= \frac{1}{2} \times m v^2$ ). But a luminous sunbeam transfers all of its radiant energy ( $= m v^2$ ) to a perfect absorbent, and withholds none.\* Swedenborg seldom treats of this obvious kinetic energy with which the engineer is concerned, but his *conatus* is the immensely more powerful energy of formation of the elements—the power concealed within the

\*As is well known, light is never permanently potential energy, but exists alternately in the potential and the kinetic form. On the other hand, when two material particles approach each other under the pull of gravitational force, there is an increase in the sum of their combined kinetic energies which is equal to one half of the decrease of potential energy. The other half remains in the gravitational field as an internal distortion of the aura involving a redistribution of its potential energy.

atoms which has at last been recognized by science through the discovery by P. Curie and Laborde in 1903 that the atomic disintegration of radium produces a continual evolution of heat, and at such a rate that pure radium can raise its own weight of water from the freezing to the boiling point in an hour. This energy, though not absolutely inexhaustible, is of such extraordinary endurance and potency that we seem to be approaching the Divine source of power, and with Swedenborg we can say that in her inmost hidden chambers nature touches the Infinite.

Swedenborg's initial motions are characterized as essentially reciprocating and perpetually circular or vortical. It is only when motion is far removed from its source in creative influx that it seems independent, and comes under the apparent law that "all motion is rectilinear unless deviated by some force." But the deviating force is almost always present, so that rectilinear motion is hard to find. Cycles, entropies, closed lines of force are the rule in nature, and science has confirmed the perpetual circulation within the atom.

A higher or more complex form than the vortical is scarcely conceivable in the particles of a natural atmosphere. Yet there are wonderful adaptations and preservations in nature which Swedenborg assigns to a higher form than the vortical. The form above the vortical is described in "The Worship and Love of God" (p. 18) as "perpetually vortical." It is the form from which "those faculties and virtues result by virtue whereof one thing regards another as itself." The forms above nature being "perpetually celestial or spiritual" (*Ibid.*, p. 42), contain "nothing but what is infinite, flowing from the irradiation of the Sun of life itself, as the other forms flow from the irradiation of the sun of the world." The last part of this sentence is very general, but without wishing to lay too much stress on it, the meaning seems to the writer in harmony with the formation of matter out of light which he has tried to formulate.

For the hypothetical primitive medium of moving points considered as a figure in space, we have our author's own

example guiding us to the substitution of the later conception of spiritual atmospheres, corresponding to those of nature and connected with them interiorly through a causative relation, but not existing in space of three dimensions as distinct geometrical structures. We have seen that there is evidence of an atmosphere in nature which is more universal than the ether. Vitalizing energy is connected with this magnetic element as the soul with its body. If a more literally spatial conception of energy is demanded, it seems proper to regard it as intermediate between the spiritual and the natural worlds, and as entering into nature through vitalizing centers. Or we may ascribe to that which is antecedent to the aura a purely spiritual and essentially human form, and may conceive this form as energizing matter and as entering into matter by spiritual influx, but not as possessing a spatial extension of its own.

As a single consistent theory of creation, the "Principia" is not entirely successful. Its value is rather as an example of high thinking and as a mine of useful suggestions. Moreover, as Swedenborg learned later, creation is from the spiritual sun and can not be comprehended from merely natural experience. Nor are the laws of nature to be found by deductive reasoning, for the palimpsest of nature has many erasures.

Indications are not wanting to show that even while writing the "Principia," Swedenborg was striving towards spiritual conceptions which are imperfectly realized in nature, because the natural matrix is inadequate. As Professor Sir William F. Barrett says in his Foreword: "he becomes almost obsessed with the idea of spiral motion." The reason for this prepossession for the spiral is probably because Swedenborg was already reaching out towards spiritual causes, for it now appears from the representation of the laws of spiritual life by mathematical equations that these require the use of spirals, as if to denote the infinite variety of Divine influx; but nature is more circumscribed and tends to single-valued orbital revolutions with only trifling variations.

## SUMMARY

Swedenborg derives all creation by successive finitings from the most universal "proceeding Divine," a term which perhaps might be paraphrased as a universal emanation from the Soul of the universe. In its final complete presentation in "Divine Love and Wisdom," his philosophy predicates three distinct orders of being, namely, a Divine world which is above finite comprehension, a spiritual world, and a natural world. The world of nature, as it is considered in the "Principia," begins in a universal medium, or atmosphere, composed of innumerable centers of *conatus*, a term which appears to convey substantially the same meaning as the modern concept of energy, but with this distinction:—The source of *conatus* is a continuous influx of spirit. A perpetual inspiration and exhalation of the spiritual atmospheres is everywhere going on in the inmost structures of matter whereby they are sustained. The heart-throb of nature pulsates with Divine creative energy, guarded like our own heart-beat by a Providence that never sleeps. "Behold he that watcheth over Israel slumbers not nor sleeps."

The more elevated the medium in the creative series, or the nearer the approach of least forms to their infinite Source, the more powerful and the more nearly instantaneous do the manifestations of energy become. For in the spiritual world, time and space as we know them are not; and the centers of energy, though situated in space, derive their energy from pure spirit which is not circumscribed by space. Thus gravitation which acts to the remotest bounds of the natural universe with a speed so nearly instantaneous that we have no means of measuring it, and which is beyond the control of any but the higher orders of spiritual intelligence, is of all natural forces that which approaches nearest to the spiritual source. Yet it is a property of the lowest forms in the natural world, reminding us that the soles of the feet are directly innervated from the highest part of the brain.

The brain of man, in some of its interior workings, is able to take hold of the universal aura and affect other hu-

man beings by a sphere of natural thought whose radiations, like those of gravitation, may be felt even to the antipodes. The spirally interwoven least fibers of the brain's cortical glands are formed for the reception of this aural flow.

Out of the universal medium, a structure is produced by means of motion proceeding to limits. This structure consists of least forms which are also most perfect, or uniform, and which, being actuated by the energy within them, produce finites of a second order, which may again enter into activity of a lower degree, making a third finite in which differences begin to appear, and so on, until three distinct physical atmospheres have been formed one from the other.

The form of motion in the primal particles of these atmospheres is described and figured in the "Principia" as vertical. Swedenborg, therefore, and not Lord Kelvin, is the originator of the first conception of a "vortex-atom." He may even be said to be the originator of a supposition not very different from that of the compounding of revolving electrons into atoms; for, as the particles of his magnetic element are composed of superficial passive corpuscles enclosing actives, so by a repetition of the compounding on a larger scale he makes the aerial particle to consist of a new order of superficial passive particles, enclosing perhaps a thousand, perhaps ten thousand particles of preceding elements in intense activity; and these enclosed active particles are conceived to be atoms of *energy*, either pure, magnetic, or electric, formed by means of motion. Comparing this idea with Sir J. J. Thomson's earlier conception that the atom contains some thousands of corpuscles of negative electricity, or at any rate some hundreds, and noting that Clausius and many other scientists have held that ether and electricity are the same thing, while Bragg finds most intimate relations between the light-quantum and the electron, it will be seen that Swedenborg's hypothesis has points of resemblance with some of the most notable recent achievements of science. This is not saying that the hypothesis was established by him, or its details filled in, for the necessary observations were lacking in his day, and the very

forms of mathematical reasoning which are required to take care of the complex vortical motion had still to be created.

In one respect Swedenborg's conception of a universal interstellar atmosphere, or aura, differs from the scientific doctrine of a universal luminiferous medium hitherto held: The light-bearing medium is considered to be composed of elementary particles condensed from the aura, but does not constitute a universal medium and is segregated around stellar and planetary systems. Moreover, his conception of light combined the Huygenian and Newtonian hypotheses, for, whereas at a time when the Huygenian hypothesis had been abandoned, he held that light is a vibration of the ether, he also taught that the ether is a discontinuous medium of limited extent; and thus when light comes to us from the stars, it must be by the shooting off of ethereal particles which traverse the interstellar spaces with the speed of light, retaining their peculiar vibrant state until received by other ethereal media where the motion may be handed on from particle to particle, or what seems to have been more nearly Swedenborg's idea, the ether particles can pass through each other somewhat freely and continue their onward motion until obstructed by grosser matter. The revival of a modified corpuscular theory of light at the present time makes the appearance of this work in English dress appropriate.

Perhaps Swedenborg's greatest contribution to scientific philosophy is his doctrine of discrete degrees and his demonstration of a threefold order in all created things. As there are three degrees of atmosphere—aura, ether, and air—so there are three degrees of force—gravitational, electromagnetic, and thermo-dynamic. The chemical constitution of matter is threefold, consisting of corpuscles, atoms, and molecules. Even a single thing has to have a thrice-repeated infolding, the electrons (themselves manufactured out of the ether) being built up into subatoms, and these into atoms. In metals and stones "there are conglobations of parts in a threefold order." In his great work on the human body as "The Kingdom of the Soul," Swedenborg

demonstrates that every muscle is composed of fascicles of fibers in a threefold order, every nerve of bundles of nerve fibrils in a threefold order. Every gland and tissue exhibits the same law. The blood contains free living cells floating in its current—the blood-plaques (the most active elements), the white corpuscles, and the red disks. Even so apparently unimportant a thing as a mere covering, or skin, as in the integument of most seeds, has to be threefold—an exoderm, a mesoderm, and an endoderm. Nature has to have three kingdoms—animal, vegetable, and mineral; matter its three states—solid, liquid, and gaseous; and thus our author leads up to his doctrine of the philosophic trine of end, cause, and effect, whose image is impressed upon the whole creation.

If criticism is to made of a work so great, so inspiring, it must be on its minor defects. Swedenborg has sometimes been spoken of as a “mathematician.” With all his varied accomplishments, he can scarcely be called that. Although he published the first treatise on algebra ever printed in the Swedish language, that fact in itself speaks for the low state of mathematics in Sweden in his day. One is surprised that it had not been done before. We may concede that as the inventor of a method of finding the longitude by the motions of the moon (a work which was praised by his teacher, Edmund Halley, even though it failed to receive the approval of the British Admiralty), and as an engineer, accomplishing the feat of constructing the first ship-railway and transporting a fleet of war-vessels across land, more than two centuries before Captain Eads evolved his conception of an Isthmian ship-railway, he must have had some talent for mathematics; but this science requires the undivided attention of its devotees, and Swedenborg had too many irons in the fire to make much progress in it. Thus it is no wonder that in attempting to give mathematical illustrations of some of his theories in the “*Principia*,” he sometimes gets beyond his depth. The modern reader must pardon his blunders and condone his painful struggles with the laws of spirals. Although almost any young

college graduate of today could set him right on these details, when it comes to the real meat of the matter, the best of us must bow down in reverence and amazement before the nobility and grasp of this man's thought. The spirit of reverence for truth, the extraordinary prophetic insight into the coming conquests of science, the extreme modesty of the presentation of one of the most original systems of philosophy that the world has ever seen, remind one in some respects of the poet-philosopher of Rome—Lucretius. Swedenborg's achievement, however, is much more notable in that it is founded in a purer reason. The clouds of ignorance and superstition which weighed so heavily upon the gifted Roman had been removed, while the spirit of independence, and of reverence for essentials, remained the same in both of these worshipers at the altar of truth.

The first point at which Swedenborg was able to test his theories was in their application to the phenomena of magnetism. Here he takes the known experiments of his day, proves that the least particles of the magnet are themselves magnetic, and accounts for loss of magnetism by a return to an indiscriminate orientation of the least magnetic particles. What we now call the magnetic lines of force are represented as a constant emanation of vortices of the magnetic medium from one pole of the magnet, and their re-entering into its substance at the other pole in a perpetual vortical flow. His attempt to account for terrestrial magnetism and to predict the magnetic declination for various parts of the earth for some centuries to come has fared no better than similar attempts in more recent times. We have finally settled down into the conviction that the magnetic changes are very much like the successive states of the weather, and that all efforts to reach long-range predictions are doomed to failure until a more complete body of facts is procured.

These volumes are rich in suggestions, some of which, such as that of the identity of lightning and electricity, have been confirmed; others still await suitable tests; while few have been completely disproved. No part of the "Principia" has attracted more attention than the theory that the planets

in the solar system have been thrown off from the sun and have gradually receded to their present positions, at the same time cooling and developing as earths. Laplace, who probably heard of the idea through Buffon, was apparently incited by it to form his own nebular hypothesis, from which, however, Swedenborg's theory differs in several respects, being less definite, but also less open to objection.

Finally, Swedenborg's doctrine that the Milky Way is the magnetic, or circular, axis of our starry heaven, and that there are many other galaxies, transferred his theory of spirals to the stellar universe.

Comparison will inevitably be suggested between this work and Sir Isaac Newton's "Principia." Newton's treatise has a rigorous mathematical embodiment to which Swedenborg makes no pretensions; but Swedenborg's philosophy is of far wider scope, and it opens up for the first time the full complement of physical phenomena in a rational manner. Regarding the work as a preliminary survey of the entire field of physics awaiting investigation, and as a schedule to be filled in by the gradual accumulation of experimental evidence, the prescience of its author is extraordinary. The germs of nearly every great discovery in physics which has been made since its time lie strewn through its pages in almost reckless profusion. It is true that there is at times an apparent groping for ideas which are imperfectly grasped, and some of the statements could have been made more succinct with decided advantage; but the grand general conception presented to our view in this work is a prophetic picture of scientific progress.

FRANK W. VERY.

## EDITORIAL DEPARTMENT.

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### THE CONVENTION.

THE ninety-third annual session of the General Convention in Boston, June 7-10, was one of the pleasantest and most useful in the history of the Church. And it is but just to attribute the fact in a large measure to the untiring activity and devotion of the President, the Rev. Julian K. Smyth, throughout the year, and to his tactful and most happy way of presiding and of administering affairs during the meetings. His sermon at the opening religious service, on "The Church's Unknown Success," was more than encouraging, it was inspiring; and the spirit of it was continued by others in all the services. The new plan of having a brief meeting in preparation for the Sabbath and the Holy Supper at the close of the first business session Saturday evening proved most satisfactory: there was a large attendance and the religious service was greatly appreciated. The President conducted it and spoke of the privilege of worshiping together in the large congregation that Convention brings to the Boston church, and of receiving the Lord's Supper in the spirit of the Convention services when we are praying for the Divine blessing upon the New Jerusalem in its larger, more universal form.

Sunday morning worship was conducted by visiting ministers in all the suburban New-Church Societies, and still a congregation of 642 greeted the Rev. Charles W. Harvey of Philadelphia in the Boston church, responding heartily to his excellent sermon on "The Church and Ecclesiasticism," from Revelation xxi, 22: "I saw no temple therein: for the Lord God Almighty and the Lamb are the temple of it." In the afternoon all united in receiving the Lord's Supper administered by the President to 675 communicants; and a union service was held there also in the evening when the Rev.

Frank A. Gustafson of Detroit interested a large congregation in a sermon on "The Ruler's Daughter," speaking without notes and with remarkable fluency.

The Vespers at the close of the meetings Monday and Tuesday were a new feature, taking the place of the noon sermons or conferences of the past few years. They brought larger numbers than usual to the afternoon meetings, which increased instead of diminishing at the close of the day, when a glorious climax of thanksgiving and praise was reached. The Convention is indebted to Mr. Horace Blackmer, the Musical Director of the Boston Society, and to the choirs of young people of that and the Roxbury Society, for the spiritual uplift and joy of these services.

We need scarcely refer to the Monday evening reception at Whitney Hall, which was a most happy occasion for old and young together; nor to the long sail to Marblehead Saturday afternoon, provided by the Young People's League, but equally enjoyed by most of the ministers and older people. In connection with these social events, however, we cannot refrain from expressing satisfaction with the way in which old and young alike subordinated recreations to the serious business of the various auxiliary organizations of Convention which had occasioned their coming together, and especially to that of the Convention itself. One great purpose ruled constantly, namely, to do faithfully, and as well as possible, the work of the Church in its various branches. Hence, every meeting was well attended, every matter received close attention, and every speaker seemed filled with the desire to make the most of his time, as other important things were waiting. And so every moment was filled with interest.

One pleasant feature of the meeting of the League was the commemoration of its twenty-fifth anniversary. In the same church in Boston twenty-five years ago a federation of Young People's Societies was formed which resulted in the present organization. And brief addresses were made by the Rev. James Reed, who was the first to form a young people's organization in the Boston Society thirty-five years ago, by the Rev. H. Clinton Hay its first President, by Mr. Ezra

Hyde Alden, who when President later became the father of the national League, and by a number of the former Presidents of the larger organization. The reading circle maintained among the young people was referred to as the most useful work thus far developed, and the *League Journal* which serves to keep the federated societies in touch with one another; but not the least among its services to the church is this annual gathering of earnest young people from various parts of the country adding enthusiasm to the meetings of the Convention.

In this connection the General Conference of Great Britain came into remembrance; for Mr. Reed mentioned in his address that its Junior Members organization first suggested to him the formation of the Young People's Association in his society. But more recently a federation of the young people's societies in England has been following in some lines of development with our League; particularly in the publication of a journal devoted to its interests.

From the General Conference also came the suggestion of an Augmentation Fund, which has proved of such very great benefit in the Convention during the first year of its existence. The Committee in charge of this reported that \$53,000 had been received for the permanent fund thus far, and that in addition \$8,000 had been received to sustain the work of the year. By means of this income a number of societies had been enabled to enjoy the services of a minister, which with the increasing cost of living might not have been possible without it, and so the work of the New Church had been prospered in those communities. And in addition to this, some promising students have been enabled to attend the Theological School at Cambridge to recruit the ranks of the ministry, one of whom was ordained at this meeting of Convention, having accepted an invitation to become the Pastor of one our older societies in Massachusetts. Indeed, this Augmentation Fund has sent a wave of encouragement and new life, not only into the Theological School and some of the weaker Societies, but also throughout the Church; for it has opened a way of helping where help was most sorely needed

to prosper the Church, and it is freeing the Board of Missions from the care of helping struggling Societies and Associations, thus giving opportunity of entering new fields of purely missionary enterprise.

This was noticeable in the report of the Board of Home and Foreign Missions, which occupied a considerable part of Monday afternoon with addresses from its missionaries. The outlook seems bright in Texas with Mr. Broomell reaching many places and carrying on an especially active work in San Antonio as a center. Mr. Spiers is visiting many places in the South in addition to his steady labors in Richmond. And a large opportunity is developing on the Pacific Coast. From abroad the most encouraging information of awakening interest is in India, where both English clergymen and native students have been expressing their full acceptance of the New Church and their desire to extend its light as fast as the way can be opened under Divine Providence.

Rev. Dr. Sewall of Washington called attention to the remarkable appeal of the President of the new republic of China for the prayers of the Christian Church in behalf of the Chinese people on the occasion of the inauguration of their new Goverment. And on his motion, first in the Council of Ministers and by its hearty recommendation, it was voted to send a message of Christian greeting and affectionate sympathy from the Convention, together with a handsome set of the writings of Swedenborg, to the President of China.

For some years the younger ministers and laymen of the Church have been interested in social service, commencing with the work of the Young People's Society under Mr. Seward in New York, which is now firmly established in the settlement work of the Kennedy House; and continuing more recently with the work of the Lynn Neighborhood House in Massachusetts, and the large work successfully begun by the Rev. John Stockwell in Frankford, Philadelphia. This led to the favorable discussion in the meeting of the Alumni Association of the subject, "Should the New-Church Theological School Teach Social Service?" And in Convention the Rev. Charles W. Harvey of Philadelphia introduced a resolution

calling for the appointment of a Social Service Commission similar to one recently appointed by the Pennsylvania Association. This resolution was adopted without dissent of any kind, and the Commission appointed, consisting chiefly of those already engaged in these fields of church extension. So the Convention has launched definitely upon a new kind of activity which seems to be introducing the affectional side of missionary work to go along with the intellectual side so long established. At the meeting of the Round Table, which proved to be the most interesting of any Round Table meetings that the writer has attended, reports of the work being done in New York, at the Kennedy House; in Lynn, at the Neighborhood House of which Mrs. Gregg, ably assisted by her mother and daughter, is the Matron; and at Frankford, Philadelphia, were made and discussed. A large gathering showed the sympathy which has been enlisted.

The Council of Ministers met at the Theological School, and was delightfully entertained by the Cambridge Society. The annual sermon by the Rev. George S. Wheeler of Providence drew an inspiring lesson from the inscription, on the plate of gold worn by Aaron, "Holiness to the Lord," of how the Lord made His human life with men full of soundness and wholeness to lead men into such living; and how the ministry of the New Church should have this as the badge of their calling in spirit and truth. There were also papers and discussions of "Proper Unveilings of the Spiritual World" and of the "Philosophies of Eucken and Bergson," all of which were listened to by friends. The most important matter of all was the report of the Committee on Making the Doctrine of Marriage More Useful. The Committee had been appointed to meet the needs of the Petition of Jane Dearborn Mills and 198 others who were interested in this subject. They had worked patiently and thoroughly during the year, desiring to hear all who wished to confer with them and to co-operate sympathetically in bringing about the desired result. The report is so wise and able that we shall conclude this review of the last session of Convention, a most harmonious, useful, and satisfactory session, by printing it

in full, prefacing it with the simple statement that it was heartily accepted by the Council of Ministers, and all its recommendations adopted, and Committees appointed to carry them out; and when it was reported to Convention it was endorsed fully by its action.

H. C. H.

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REPORT OF THE COMMITTEE TO CONSIDER  
AND REPORT ON WAYS OF MAKING THE  
TEACHINGS OF THE NEW CHURCH  
CONCERNING MARRIAGE MORE  
WIDELY USEFUL.

The duty of this committee is described on page 43 of the Convention Journal for 1912, in these words: "To consider the plans already suggested for making the teachings of the New Church concerning marriage more widely useful, to receive from all persons who are interested reasons for or against any of these plans, and to receive also any further plans that may be suggested, and to report its conclusions to the Council at its meeting next year."

THE POSITION TAKEN BY THE CONVENTION.

As a basis for new work, it is well to remember that by the adoption of the Brockton Declaration in 1909; as also by a resolution passed by the Council of Ministers that same year and afterwards affirmed by the Convention in 1911, supported by other resolutions adopted that same year, the Convention publicly and solemnly avowed its faith in the absolute purity of the doctrine of the Church on the nature of marriage love and its violations, declaring that the only rule of conduct which the teaching found in the writings of Swedenborg makes morally allowable is strict obedience to the commandment, "Thou shalt not commit adultery," in its letter and in its spirit; and that the only law of purity for all men is that declared by our Lord Jesus Christ in Matthew v, 28: "But I say unto you, that whosoever looketh on a woman to lust after her hath committed adultery with her already in his heart." In other words, there is no course of conduct which any man or woman can rightly choose or prescribe to others but that of obedience to the Divine commandment, which forbids impurity of act and thought and desire. This position, affirmed by the Council of Ministers and by the Convention, rests on the fundamental doctrine of the New Church, the doctrine of THE SAVING POWER OF THE LORD, and is immovably established. Each year of thorough and prayerful study and of experience, has confirmed the Church in the truth of this position.

## USE OF THE BOOK ON "MARRIAGE LOVE."

The doctrines of the New Church concerning marriage contained largely in this book are written from a point of view including heaven and earth and hell; they present the highest ideals of marriage that the world has ever known, and reveal the awful and deadly consequences of the violation of marriage, as they have never been revealed. Swedenborg's treatment in Part II, of this book is clinical, analytical, interpretative, not prescriptive, except so far as the revealing of evils must be a warning to shun them. As a probe it reaches and exposes the nature and spiritual consequences of extra-conjugial loves as no other treatment of this subject has ever done. It gives us the means of recognizing the spiritual deadliness of the social evil in our cities, against which there is such an uprising at this time, sinking the probe into the sin of roaming lust and the still viler lust of defloration (the "white slave evil") as no other teaching has done.

Swedenborg's treatment is exhaustive. It searches the nature of extra-conjugial love in all its forms. For this reason it includes in its analysis not normal men alone, with power of intelligence and will, which, with the Lord's saving help, should give them control over every form of lust, but also perverts, degenerates, pathological cases which, alas, exist in spite of the most enlightened efforts of our day. As a committee, we hold that Swedenborg nowhere teaches that a normal man, religious or non-religious, spiritual or natural, is under any necessity of seeking sexual indulgence; and, in accordance with the solemn declaration of the Council of Ministers and the Convention, we hold it to be a mark of ignorance of the real meaning of Swedenborg's teaching, and a scandal, for anyone to represent him (Swedenborg) to the contrary.

So far, of the platform on which we stand.

## RECOMMENDATIONS.

Our first recommendations relate to the book on "Marriage Love."

1. We believe absolutely in the purity of the book on "Marriage Love," in the purity of its purpose and in the Divine Providence which has determined the form in which it has been written. We believe also that any deep analysis and study of such subjects as are treated in this book can be wholesome only when protected by the heavenly sphere of use and spiritual consecration in the mind of the student, and that this principle should guide in a discriminating distribution and use of the work on "Marriage Love."

2. Another suggestion, which came to the Council of Ministers last year in the form of a petition, is for the publication of an abridged edition of "Marriage Love," certain passages to be omitted which are considered to be liable to misunderstanding. We sympathize with the underlying purpose of this suggestion, but we believe that the dis-

approval of this plan expressed by the Council of Ministers last year was well founded. In our judgment the plan is essentially wrong, and for these reasons:

(1) It ignores the hand of Providence in giving the book to the world in its present form.

(2) It implies that the soundness of its treatment of the evils which it analyzes is open to question.

(3) The plan would fail to accomplish the purpose intended, for it would in effect simply call attention to the passages which are found by some persons difficult to understand.

3. In our judgment, the suggestion that future editions of "Marriage Love" be carefully annotated, comes nearer to meeting the case. We approve the general character of foot-note upon No. 460, in the Library Edition of "Marriage Love," putting a passage which, standing alone, might be misunderstood, in the light of the fundamental doctrine of the Church as found in the "True Christian Religion" and the "Doctrine of Life." We recommend that notes of a like character be carefully prepared upon other passages in the book which standing alone may seem difficult, putting them in the light of the central doctrines of the Church. We advise that it be earnestly recommended to the several publishers of his book: the "American Swedenborg Printing and Publishing Society," and the "Rotch Trustees" in America, and the "Swedenborg Society" in London, to include such annotations in all future editions of the book. And in the event of any publishers adopting the suggestion, the Council of Ministers offers its services in providing such notes.

4. We urge also that the question of faulty translations in the book on "Marriage Love" be carefully investigated, and that all faulty translations, wherever they may exist, be corrected. The expense to the publishing societies of reissuing the book in the manner recommended is insignificant in view of the important use to be performed.

5. In addition to the foregoing suggestions, we also approve of the preparation and use of books which shall present the Divine origin and spiritual nature of marriage, and the sacredness of its obligations, with warning against its violation, in forms adapted for use with the young people of the Church and for general missionary use. Among books of this kind, we believe there is use for a small volume of extracts from various works of Swedenborg concerning marriage, using the best possible translation.

6. We see use also for a book presenting the great truths of the New Church on this subject in strong and simple language; the new writing in each chapter to lead up to and be amply supported by passages from Swedenborg presenting the topic under consideration. We learn that there is prospect of the early publication of such a volume, under the auspices of the New York Association.

7. We also recommend that the New-Church Press be requested to issue an edition of the marriage service in white and gold, including a marriage certificate, and in a form suitable to be used by an officiating clergyman at the wedding ceremony and then presented to the bride as a memento; the booklet to contain some of the most beautiful of the passages from the Writings setting forth the heavenly nature and origin of true marriage love. We believe that this would be an auspicious time and an effective way of sealing upon the minds and hearts of bridegroom and bride the holy truths which should help them to form the ideals by which they should be actuated in entering into the marriage covenant.

8. We must keep constantly in mind the need for the careful instruction of our young people in regard to the Divine origin of marriage and the sacredness of its obligations,—instruction in which parents and ministers must both have a part.

#### OUR RELATION TO THE BATTLE OF OUR DAY FOR PURITY.

The evident motive of the whole teaching of the New Church in regard to marriage and its violations is to promote purity in the world, and the realization of the true ideal of marriage. We feel ourselves commanded by the doctrine to work for the cause of purity, and for the removal of conditions which encourage impurity, for the safeguarding of marriage and of home. The New Church has a distinct contribution to make to the cause, in its teaching of the Divine origin and spiritual nature of marriage; of the eternal blessing of obedience to its Divine laws and the deadly consequences of their violation. Not only the purity of New-Church men and women in their personal life, but also their earnestness and wisdom in working for the cause of purity in the world in connection with such movements as shall appeal to them as being genuinely useful, should win the respectful attention of the world to the doctrine from which they draw their inspiration and their strength.

Nothing would do more to strengthen the New Church and to promote the cause of the New Church in the world, than for all loyal members of the Church, with faith in the Lord and in His saving power, and in confidence in one another, to stand together in the effort to make the teachings of the Church, including the teachings concerning marriage, a living power in the world, in this time of new problems, new conditions, and new opportunities.

Respectfully submitted,

WM. L. WORCESTER

JULIAN K. SMYTH

WILLIAM F. WUNSCH

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CHAS. W. HARVEY

Committee

## THE ANTI-CHRISTIAN TENDENCY OF THE AGE.

RELIGIOUS tendencies, and modern religious tendencies in particular, are very complicated affairs. They are interwoven so intimately with the general conditions of civilization that the task of dissecting them and tracing them is exceedingly difficult. There are some tendencies which are obvious and apparently predominant, but which may be rather characteristic of the passing mood of the day than of the deeper issues of the real life of the period. On the other hand, there are certain tendencies which seem to be perennial and to grow out of fundamental instincts of human nature. Of these perhaps the most universal are what we may call naturalism and supernaturalism; both seem to be vital and inherent in the very constitution of man. Religion, it seems, is the peculiar battle-ground of these two tendencies. In former times, religion was more especially identified with supernaturalism; but of late naturalism has been asserting with ever stronger emphasis the claim that now at last even religion is included within its domain.

There are many circumstances which help to explain why naturalism is so predominant in modern life, and why religion has yielded so much to its influence. In considering these circumstances we are carried back to the conditions of Mediæval Europe. Without going into detail it is enough to refer to the revival of learning occasioned by the recovery of the Greek and Roman classics, and to the epoch-making discoveries in the field of natural science associated with the names of Columbus, Copernicus, Kepler, Galileo and others scarcely less notable. European civilization as a whole was at that time seized with new impulses and fired with a zeal for new ideals. Under the inspiration of Greek art and Greek thought, the joy of living abounded; and this, together with the triumph of scientific achievement, gave human life new values. Man and nature acquired new proportions. The study of man and the study of nature were set over against the barren formalism of scholastic science, philosophy, and

theology. In opposition to the restrictions of the mediæval church, the self-assertive spirit of the age found free expression in the "humanistic" and "naturalistic movements."

With the development of the natural sciences and of the national literatures of Europe, came the rationalistic philosophies, culminating in German idealism. As a result of this whole movement of the age, or of these combined movements, European life and European religion were so transformed intellectually that we may properly speak, if not of the modern world, at least of the modern thought. The vastness of the universe and the significance of man, gradually brought to view in the progress of modern thought, have given new strength to the two historic tendencies, naturalism and individualism, which now may be said to characterize Christianity, not merely in Europe, but throughout the civilized world.

The immense influence of naturalism as a phase of modern civilization is due to the steady growth and, especially of late, the rapid expansion of the whole body of the natural sciences. The conception of nature has been so extended as to be all-inclusive; and the processes of nature are supposed to be so eternally established, so constant, and so inevitable, that they have come to be regarded as the ultimate standards of thought and life. Under this enlarged conception of nature, even man's higher powers have been gathered. Consequently, in the modern view, or at least in the modernistic view, the word nature covers every thing in the universe, and the word supernatural is relegated to the superstitions of the past. Accordingly, religion implies neither a supernatural world nor even the existence of God; it is rather a cosmological sentiment, and is valuable only for its social efficiency.

Naturalism in religion is the specific outcome of the wide application of the historical method. The study of the natural sciences, especially such sciences as astronomy, geology, and archeology, have taught the lesson that the world and mankind have a history which extends beyond the limits of the most far-reaching imagination. This history has its mod-

ern formulation in the doctrine of evolution, which offers an explanation of the world and of man, based on the principle that everything and every event has a history, and that in its history we find its explanation.

Religion is no exception to this law. In the history of religions, therefore, we look for the origin and development of all forms of religious faith and practice. Under this treatment religion itself takes on the character of a natural history product. Human nature has among other primitive elements the religious instinct, and from this the religious sentiment develops spontaneously as a fitting response to the natural environment. The vague sense of the cosmos and the awe-inspiring operations of nature are sufficient to call forth this response. Religion, then, is not a gift of God, superimposed upon human nature from without; it is a primary function of the man himself, capable of development from within.

These views and conclusions are common to all the religious tendencies of our day, in so far as they are determined by naturalism.

Besides this prevailing naturalism, religious thought at the present time is profoundly influenced by individualism. The individualistic tendency is inherent in Christianity because of the emphasis it has, from the beginning, placed upon the value of personality. The human soul, its salvation and eternal welfare, has ever been the special object of Christian interest and concern. But this individualistic tendency received a characteristic development under the historical conditions which operated most significantly in Germany, at first during the Middle Ages, and afterwards even more powerfully in the so-called period of enlightenment when German literature blossomed out along with German idealism and romanticism. The abstractions of the Kantian philosophy with its emphasis on the *à priori* forms and the constructive powers of the human mind, and the egoistic philosophies of the idealists combined with the extravagances of the romantics, had the effect of exalting man to the position of creator, and made the concept of God so vague and difficult as to be practically useless, if not impossible..

This is, for the most part, the present position of religious thought in large circles of modern life. Individualism threatens to become solipsism.

The Protestant reformation took up and moulded to religious purposes the naturalistic and humanistic motives of the renaissance. Partly a revolt against the abuses of the Catholic Church, it was more vitally a passionate assertion of the freedom and independence of the individual. This led to a religious individualism so absolute that not only the authority of the Pope, but the principle of authority itself, in every sense and application was renounced. It is true that the authority of the Bible was for a time substituted for the authority of the Pope; but inasmuch as the interpretation of the Bible was left to the reason, judgment, or taste, of the individual, without any guiding or regulating principle, the authority of the Bible itself was undermined by the conflicting interpretations; and the conscience of the individual remained the sole criterion of religious truth, however crude and uneducated that conscience might be.

The individualism which then led to the virtual rejection of the Bible, involved a naturalistic conception of religion. The emphasis which Protestantism placed upon faith, made religion an individual experience, so intimate and so unique, that to attempt to describe it or to translate it into forms of thought was to violate its nature. Religion, according to this view, is the individual's conviction of contact with God. As such it is peculiar to the individual. It cannot be imparted or shared. It is therefore a fundamental misconception and error to speak of religious truth; for truth implies external relations and standards. All attempts to reflect upon the cause of it, or to explain it, tend to destroy it. To refer the experience to God as the external source or cause, is to violate its inmost essence, which is to be forever the individual's own peculiar unique experience. It is vital to the genuineness of the experience to preserve its identity and its selfhood.

This view is the very essence of Protestant individualism, and the effect is seen in the tendency of Protestant bodies

to split up into sects. In this radical individualism, we see the root of Protestant opposition not only to ecclesiasticism but to all dogma and creeds, and even to the very conception of a church. We also see that this individualism is at bottom anti-religious. The very idea of God is repugnant to its essence. In other words, properly speaking protestantism is not religion, but a species of naturalism. This does not imply, of course, that protestants are not religious; but with them religion and naturalism are confounded.

Under the influence of the tendencies now brought to view, religious thought is exhibiting an unmistakable anti-Christian drift. This drift is primarily and more directly due to the extended and unrestricted application of the historical method. When certain German scholars, a few generations back, came with the training of this method to the study of the Bible, they naturally assumed that the history of the Bible must furnish its complete explanation, and that this history must be confined to the natural events which make up the Bible narrative. The supernatural elements were explained away. Its claim to be the Word of God and the direct revelation of God to men, was set aside as a mere form of speech peculiar to the age and the race. Revelation, like religion, was referred to a natural capacity of man. In some individuals human nature was supposed to rise to extraordinary heights, and to attain larger and deeper vision than usual. In these we have our prophets and seers. Hence we have a revelation of man, not a revelation of God.

Such is the outcome of the historical method, or as it is called when applied to the study of the Bible, higher criticism. The Bible is reduced to the level of a myth, and revelation is merely a part of the natural history of man. The result is critical for the integrity of Christianity. The Gospel story, like the rest of the Bible, has been revised in the light of the higher criticism. All the supernatural features have been eliminated by referring them to the myth-making character of the age. The Lord's personality has been stripped of its superhuman powers, and His teaching has been interpreted as merely the best product of his time. With the idea of the

supernatural in the Bible, in revelation, and in the Lord's character and work thus cast aside, the present tendencies of religious thought are obviously and essentially anti-religious and anti-Christian. No doubt there is in our modern civilization a great body of genuine Christian thought and life; and, what is perhaps more important, many sober-minded religious teachers and leaders are making an honest and earnest effort to keep the Lord in the position of author and leader of Christianity. But once the Christian scriptures are discredited, and the attempt made to reconstruct them under naturalistic presuppositions it seems inevitable that the result will be final and complete rejection of both the record and the person as either authoritative or essential. Traditional Christianity will then be set aside, and for it will be substituted a new religion, created by the religious forces of the present day with little or no dependence upon history. While this outcome is not probable, still it must be confessed that scholarship seems about to take a long step in that direction by giving up as hopeless the attempt to ground Christianity in the character and work of the man Jesus, and by positively asserting that no such man ever lived. This is the latest phase of higher criticism.

Quite unexpectedly, and as it seems providentially, this new position involves at the same time full and clear recognition of the fact that Jesus is represented in the Gospels as God-Man, and that the language of the Gospels is symbolic throughout. These two points fixed, it only remains to add the recognition of the principle of correspondence, to be on New-Church ground, where the Gospel story is taken at its face value, with equal confidence in its letter and its spirit.

L. F. H.

## BIBLICAL AND DOCTRINAL STUDIES.

## THE BOOK OF JASHAR IN 2 SAMUEL, I.

THE present paper has for its purpose a few remarks, or rather two questions, on the reference in 2 Samuel i, 18, to the Book of Jashar; it will not be irrelevant, however, to sum up first what we may know about the book.

The references which the Old Testament makes to Jashar are tantalizing. There are only two of them, Joshua x, 12, and 2 Samuel i, 18. Both of them speak of Jashar as though it were a well-known book in their time, but neither tells us much about the character of it. At different times two books have been represented to be the lost Book of Jashar; one a re-production of early Biblical narrative by an unknown elaborator, done perhaps in the twelfth century, published first at Venice in 1625, and frequently printed since then; the other a fraud, the work of the printer who published it about 1750 as "The Book of Jashar, translated....by Alcuin." No collection that genuinely answers to the references in Joshua and Samuel is known. Donaldson has attempted a re-construction of the book, assuming that it was a book of songs about important Old Testament events. This re-constituted "*Jashars fragmenta archetypa carminum Hebraicorum*" has not commended itself, however, to students of Old Testament sources. "An ancient collection of national songs" (Driver: Introduction to the Literature of the Old Testament, p. 108) is as definite an idea of the book as the references to it afford students.

There is considerable speculation, as well, on the meaning of the title. "Jashar," in the opinion of most students, means "Upright," this to some having reference to Israel, a supposition borne out in a degree by the fact that the related name "Jeshurun" is used of Israel. Swedenborg adopts this the more

common translation, and takes pains to allude to the book as "The Book of Jashar, or the Book of the Upright." In the opinion of others the name is a transposition of the letters in the Hebrew word for song; while in the opinion of still others, the word translated "Jashar" should be pointed as the imperfect of the verb "to sing," and is then presumed to be the first word in the book, according to custom giving its name to the work. The Versions lend support to all three opinions. The article on Jashar in the new *Encyclopedia Britannica* marshals the Versions well on this point.

Swedenborg's knowledge of the book is not that of the historical student of Old Testament sources, but of the revelator, to whom, indeed, the early history of revelation itself was revealed, and among larger facts the minor one that Jashar was a book in the prophetical section of the Ancient Word. "Doctrine Concerning the Sacred Scriptures," n. 103, is the classic passage on the indebtedness of the Old Testament to the Ancient Word. There both Joshua x, 12, and 2 Samuel i, 18, are cited as mentioning the Book of Jashar. In "Apocalypse Explained," n. 401 (18), it is explicitly said that Joshua's command to sun and moon, and even a phrase more ("until the nation was avenged upon its enemies"), were taken from the Book of Jashar. It is worth calling attention to, that some commentators, according to this, mistake what is quoted in Joshua x from Jashar, thinking it is verses 13b and 14, and not 12b and 13a.

But, to come specifically now to the reference to Jashar in 2 Samuel i, 18, Swedenborg does not indicate what in 2 Samuel i is quoted from Jashar, as he does in the case of Joshua x, 12. The common assumption then as now was that David's lamentation is "the song of the bow," and was written in the Book of Jashar. The Rev. John Worcester, in the "Bread of Life," p. 59, in the excellent chapter on Bible Formation, makes the point that the assumption is not at all necessary, though the alternative he states is not a very definite one. "The song of the bow," he says, "many have been something entirely distinct from David's song, though no doubt akin to it." He takes the

lament to be genuinely David's, which is the very natural consensus of opinion, too; but unlike the majority of commentators, he thinks to notice that the lament need never have stood in the Book of Jashar. What did then? Mr. Worcester passes the subject without saying.

In his volume on 2 Samuel (International Critical Commentary) of verses 17-27 in chapter one Prof. H. P. Smith says that "the author here inserts a poem on the death of Saul and Jonathan which he ascribes to David, and which he avowedly takes from a book older than his own." Having taken the view that the whole song is out of Jashar, Prof. Smith naturally finds the manner of the reference of credit to the Book of Jashar inexplicable. "The first half verse (18) is perfectly plain so far as the words are concerned, but in their present place they are wholly incongruous." "We can do nothing with the text as it stands."

But suppose that it is only the superscription that the author derives from the Book of Jashar, "To teach....the bow." David himself then would have taken this from the Book of Jashar, form over a poem like it, and given orders that it be used as the title of his dirge. What superficial significance made it in his eyes an apt superscription for his lament, is not ascertainable, because the poem "akin" to the dirge is not extant; but the interior significance which makes it the appropriate title of the lament is plain and convincing from the spiritual sense of title and song together. (See Bruce's "First Three Kings of Israel," Chap. iii of Book II, p. 223.)

Very apparently David, rather than the author of Samuel, was the man acquainted with Jashar. He dictated the superscription. And the question naturally presents itself, did he ever get other like material from this ancient book? Is Jashar not a most probable source of the superscriptions of the Psalms, for instance, which are difficult in the same way as this title? That is, their appropriateness to the Psalm over which any of them stands is not clear on the face of them; nor are they always intelligible in themselves. "To teach....the

bow" is also quite suggestive of the title of Psalm ix, "To teach."

Jashar is a subject of interested speculation. Here are two questions more. Is it not plain that only the superscription over David's dirge came from the Book of Jashar, and that it was not the whole song that was written there first? And is not the derivation of this title from Jashar a clue to at least one source of the perplexing titles of the Psalms?

W.M. F. WUNSCH.

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### DOCTRINE.

IT is often said that it does not matter much what a man believes so long as he leads a good life and does his duty in the world. But there are many different ideas as to what constitutes a good life, and each idea depends on the beliefs of the mind holding the idea. Thus a Christian believes a good life to be one spent in the service of the Lord and His kingdom, the moral man believes that to be good is to help one's fellow creatures without necessarily thinking of the Deity, while a follower of Nietzsche holds that to live truly well one must develop one's strength to the fullest and, if needs be, at the expense of others.

So we see it is necessary to know true Christian doctrine in order to be able to live a truly Christian good life, and it is in order that men may be enabled to 'Walk in the Light' and be saved, that the Heavenly Doctrines of the New Jerusalem were sent through the human instrument of the Lord's Second Coming, Emanuel Swedenborg. For the doctrinal system established by the Lord at His first coming has been broken and shattered by men, so that there is no coherence in teachings owing to the disuniting influence of falsity and error. As the Lord Himself put it 'not one stone upon another' has been left. Verification of this may be obtained from an investigation of the teachings of the various religious sects, for amongst these are the most widely differing views; having an extreme on the one hand in the imaginary system known

as the "New Theology" and on the other, in the fearful and damning delusions of Faith Alone and Immediate Salvation.

With regard to the New Church some people sometimes rebuke us, saying that we place the writings of Swedenborg on a higher level than the Word; but inasmuch as his writings consist of doctrines drawn from the Word and from the spiritual sense of the Word, this allegation is altogether wrong. It is impossible, however, for the New-Churchman to regard the doctrines simply as the ideas of Swedenborg as to the meaning of the Bible, nor even to claim for him the title of "Prince of Expositors": for to do so would be to treat the Bible as merely a collection of Jewish legend and poetic story, whereas the Word is, like nature, as perfect as it came from the hand of the Creator; contradictions and inharmonious things being in the interpretation and not in the Word itself. The mind which, trusting in its own power, attempts to interpret the letter of the Word must be lost in a maze of falsities and erroneous appearances, and this is just the reason for the disastrous results of the "investigations" of the "higher criticism" and of "modern thought." It is therefore necessary to a true understanding of the harmonies and beauties of the Word of God, and to the discovery of the hidden wisdom everywhere concealed beneath the appearance of the letter, that true doctrine should be given to men by the Divine Author of the Word.

The reason why the Word is not only understood by means of doctrine but also as it were shines by means of it, is that the Word without doctrine is not understood, and is like a candlestick without a light. Therefore the Word is understood by means of doctrine, and is then like a candlestick with a lighted lamp. Man then sees more than he had seen before; and also understands these things which before he had not understood. That the Word is seen from doctrine and is also explained according to it, is witnessed by experience in the Christian world—consequently falsities from false doctrine, and truths from true doctrine, hence it is evident that true doctrine is like a lamp in the darkness and a finger post on the road. Doctrine, however, is not only to be drawn from the sense of the letter of the Word, but is also to be confirmed thereby, for if it is not confirmed thereby, the truth of doctrine appears as if only the intel-

ligence were in it, and not the Divine Wisdom of the Lord, and thus doctrine would be like a house in the air. (Doctrine of Sacred Scripture, n. 54)

Hence it is evident that they who read the Word without doctrine, or who do not procure for themselves doctrine from the Word, are in obscurity about every truth, and their minds are unsettled and uncertain, prone to errors, and ready for heresies. For to them the Word is like a candlestick without a light, and in the shade they see as it were, many things, yet they really see scarcely anything, for doctrine is the only lamp. (*Ibid.*, n. 52.)

From these passages the position of the writings of Swedenborg may be clearly seen. They contain the heavenly doctrines without which the Word could not be understood, and also the spiritual sense of the Word. So when the New-Churchman places the "Arcana Cœlestia" in an exalted position in his household, and when he reverently takes down a volume to read to his wife and children at the close of the day, he is not indulging in a species of pagan worship but is performing truly Christian worship, by rendering homage to the Lord Himself who appears in the doctrines of the spiritual sense of the Word.

The reason everything of the doctrine of good and truth is from the Divine Human is that the Lord is doctrine itself; for everything of doctrine proceeds from Him, and everything of doctrine treats of Him; for everything of doctrine treats of the good of love and the truth of faith; and these things are from the Lord; wherefore the Lord is not only in them but is them both. Hence it is evident that the doctrine which treats of good and truth, treats of the Lord alone, and that it proceeds from His Divine Human. Nothing whatever of doctrine can proceed from the Divine Itself, except through the Divine Human that is through the Word. (Arcana Cœlestia, n. 5321.)

Instead therefore of the false idea that the Bible's position is usurped by the writings of Swedenborg, the truth is evident that to the New-Churchman they and the Bible are inseparable, for the Bible as the literal sense of the Word cannot now be understood without the doctrines unfolding the spiritual sense. The relations between the literal and spiritual senses of the Word may be seen clearly from reading the account of the coming of John the Baptist—if the spiritual sense be

read too. For the forerunner of Jesus Christ who was clothed in raiments of camel's hair and had a leathern girdle about his loins and for his meat had locusts and wild honey (Matthew iii, 4) was the representative of the ultimate sense which, as a leathern girdle, is cutaneous, tough, firm yet pliable, and which as an external bond connects and holds together in order all the interior and living things of the Word. Like the coarse and simple garb of John the literal sense is, regarded in itself, neither very beautiful nor elegant in style, and yet it was the Divine mercy and wisdom itself which thus accommodated and veiled 'in the clouds' of the letter, the glories and splendour of Infinite Truth to the coarse receptability of even the lowest and simplest of human creatures. Concerning himself John testifies that he "was not the Christ" but merely "the voice of one crying in the wilderness, Prepare ye the way of the Lord," from which it is manifest that John "when he spoke of the Lord, Who was the Divine Truth itself and the essential Word, regarded himself as not anything, since the shadow is dispersed when the light itself appears, or the representatives fade away, when the real thing which was represented is manifested." (*Arcana Cœlestia*, n. 9372.)

The literal sense of the Word therefore is not "the Christ," is not the Lord, is not even the Word, but is merely the letter of the Word and by itself it cannot show to men the spiritual and eternal truths of which it is the containant, and therefore John said further 'I indeed baptize with water but there standeth one among you, whom ye know not. He it is, who coming after me, is preferred before me, whose shoe latchet I am not worthy to loosen. He shall baptize with the Holy Spirit and with fire.' (John i, 27, 28.)

LEONARD CLAYTON.

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#### GEOMETRICAL CORRESPONDENCES.

GEOMETRY is one of the oldest branches of the tree of knowledge; and it still is, and is likely to continue to be, one of the important studies in our elementary schools and colleges.

But as ordinarily pursued it fails to relate itself with the deeper and more living interests of human life and destiny. For this reason it is often termed "dry" and it is found interesting at all only when it is pursued in an abstract way by the mathematician, or when it is applied in the solution of practical problems in mechanics and physics. Surely, then, if this important branch of human knowledge can be shown to be closely related to the growth and experiences of the inner life, we shall have taken a long step in the direction of making the study of it a living one, and in filling it with a new interest and delight.

But where shall we turn for help in the attainment of this much desired end? Plainly to the writings of the Church, and then to the evidences to be found in human language. Turning to the writings of Swedenborg under the subject of "Numbers," we read:

All numbers correspond, and according to the correspondence signify equally as words; yet with the difference that numbers involve *generals* and words *singulars*; and as one general involves innumerable singulars, hence it is that numeral writing involves more *arcana* than literal . . . . In the [numeral] writing in heaven there is always prefixed the number on which those which follow in the series depend as on their subject. (Heaven and Hell, n. 263.)

Again:

Every idea has its own number. In general the even numbers correspond to good, as, 2, 4, 8; and the odd numbers to truth, as, 3, 9. (Spiritual Diary, n. 5571.)

And turning to the subject of "Form" we read:

All natural forms both animate and inanimate are representative of the spiritual and celestial things which are in the Lord's kingdom. (Arcana Cœlestia, n. 3002.)

Natural forms which are not alive represent like things with living forms, that is with forms in the living body. (Ibid., n. 9462<sup>2</sup>.)

And finally we find these most suggestive statements:

That small is predicated of truth and round of good has its cause from the manifestations of good and truth in the other life . . . . Truth is presented in *definite quantity*, consequently as much or little, according to the quality of the truth; truth is also presented as

*angular* in various forms, and it is also presented as *white*. But good is there presented in *continuous quantity* thus not as much or little; good is also presented as *round* which is continuous in form and in color, as *blue*, *yellow* and *red*. . . . . Therefore it is that things in the world which approach such forms signify truths or good. (*Ibid.*, n. 8458.)

The above quotations give us a good start in the study of geometrical correspondences. But for the sake of clearness and brevity, and as a means of making a beginning in the task, let us tabulate the results obtained from the last given quotation:

## TRUTH.

1. Definite quantity.
2. Much or little.
3. Angular.
4. White.

## GOOD.

1. Indefinite quantity.
2. Continuous.
3. Round.
4. Blue, yellow, red.

Turning now to some of the simpler geometrical forms let us apply the knowledge tabulated above.

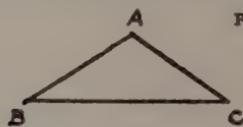
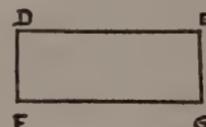


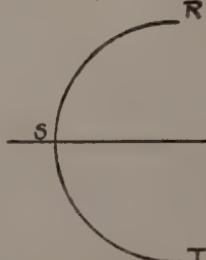
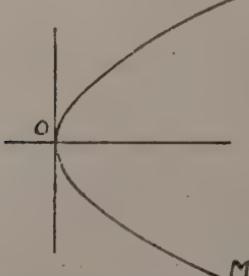
FIG. 1.



The triangle A. B. C. plainly satisfies three of the conditions for a form corresponding to truth, and if it were colored white it would at once satisfy all the conditions. So with the rectangle: D. E. F. G. But the parabola P. O. M. and the semi-circle R. S. T. clearly come under the class of forms which

P

FIG. 2.



correspond to good or what is of love. This is evident after a glance at the table above. If these forms were colored blue,

yellow or red all four conditions would be met and so the correspondence still more definitely determined.

But turning now to the field of human language we here find interesting intimations of geometrical correspondences. Take the angle A. C. B. of the triangle in Fig. 1. This type of angle is called in geometry "acute" but do we not often speak of "acute minded" persons when we refer to people of quick, keen perceptions? Again take the angle B. A. C. of the same triangle. This angle from its bluntness is called "obtuse" and we all know what is meant by the phrase "obtuse minded." We speak of a "line" of thought. But since a line may be straight or curved a line may correspond according to its nature to truth primarily or to the truth of good. The thought of a "crooked" reasoner may run irregularly zigzag or serpentine, according as his affectional nature is predominant or not. In the masculine form the hard angular lines are more characteristic and in the feminine form the soft, curved lines. This is what we should expect when we know the correspondences of each.

In art and architecture it is the marriage of male and female lines or straight and curved lines which produce the finest works. So in nature.

Thus we see how widely the study of geometrical correspondences may be extended. But lest we linger too long with the preliminary conceptions of the subject, and so wander too far afield, let us turn to a more specific geometrical form, the parabola.

This curve is one of the Conic Sections, and may be formed by passing an imaginary plane down through the side of a cone parallel to its "generating line" or its "side." On paper it is laid out as shown in figure 3, on page 462.

But once given the parabola, we ask what is the geometrical law of this curve and what is the meaning of the curve generated by it? In answering let us do what all geometers do, call distances measured on or parallel to  $XX'$   $x$  distances, + if measured to the right of  $O$  and — if measured to the left of this point; and let us call distances measured on or parallel to  $YY'$   $y$  distances, + if measured up from  $O$  and —

if measured down from the same point. Given these values then the law of the parabola becomes:

$$y^2 = 4a x$$

Where:

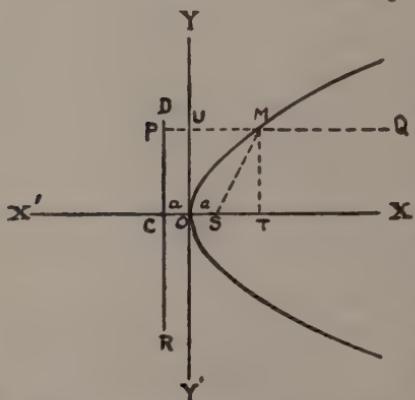
$y$  = the distance  $MT$  or  $UO$ , and varies in length as the position of the point  $M$  varies.

$x$  = the distance  $OT$  or  $MU$  and varies in length as the position of the point  $M$  varies.

$a$  = a distance that remains fixed for any given parabola.

The law as given above, however, obviously is still quite unrelated to our spiritual life. It is only a formula of ab-

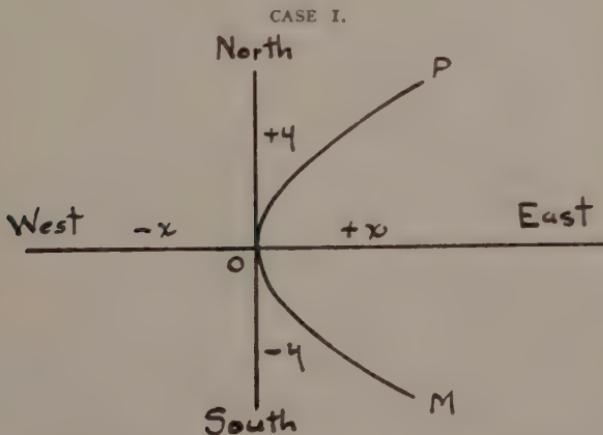
FIG. 3.



Draw the rectangular "axes"  $X$ ,  $X'$  and  $Y$ ,  $Y'$ . Lay off the equal distances  $CO$  and  $OS$  to the right and left of  $O$ . Draw the "directrix"  $DR$  through point  $C$ . From any point  $P$  on  $DR$  erect a perpendicular  $PQ$ . On  $PQ$  lay off distance  $PM$  such that  $PM$  shall be equal to  $MS$ .  $M$  is then one point on the curve. If others are likewise located and the resulting points joined we have the desired parabolic curve.

stract symbols which may mean much to a mathematician, but little to us as spiritual beings unless we can see how these symbols can be made to stand for spiritual things. First, looking at the curve itself, we see from what we have learned that it must correspond to what is of love or good. This is further shown by the presence of the number 4 in the law of the curve. This number corresponds to good (*Apocalypse Revealed*, n. 322, *Diary*, n. 5571); to the union of good and truth (*Arcana Cœlestia*, n. 5313<sup>7</sup>) and likewise to states of temptation (*Ibid.*, n. 1856). And so we may think of the curve itself as representing the state of a man's affectional life, good or evil. Whether the affectional life is good or evil

and what kind of good or evil affections the curve may represent may be graphically seen from the direction in which the *open* end of the parabola points but only after we give certain spiritual values to the ends of the axes  $XX'$  and  $YY'$  and to the variables  $x$  and  $y$ . If we give the ends of the axes the spiritual values of the four points of the compass, letting the line  $XX'$  be the east and west direction, and  $YY'$  the north and south line and let the value of  $x$  as measured on or parallel to  $XX'$  stand for developments of love; and the value of  $y$  which is measured on or parallel to  $YY'$  represents developments in truth, then, from the position of the parabola we may tell in a general way with what kind of affectional states we are dealing. This is most interesting from a spiritual point of view. But to be more specific let us briefly consider the four simpler positions which we may think of the parabola as taking in reference to the axes of reference.



Here the equation for the parabola is  $y^2 = 4ax$  and because it is opened toward the East it represents a state in which celestial affections are active or affections which center in the Lord; for the Lord is represented as to His Divine Love by the East (Arcana Cœlestia, n. 98, 1250).

In Case 2 the parabola would be turned in the reverse direction having its opened end toward the West instead of the

East. In this position its equation would be  $y^2 = -4ax$ , the values of  $x$  would all be — because measured to the left of the point O (Fig. in Case 1). The minus sign here expresses spiritually a spiritual opposition to, or a lack of, what is represented by the East. Thus this parabola might represent the affectional state of one living in the love of self or living in simple, obscure states of goodness, for the West corresponds to both of these states (Doctrine of Faith, n. 67, Divine Love and Wisdom, n. 144; Apocalypse Explained n. 239<sup>10</sup>, Heaven and Hell, n. 150).

In these two Cases, however, it is interesting to note that up to a certain point on the curve, and not far from the origin O, the values of the  $y$  or truth ordinates are *greater* than the  $x$  or the love ordinates but that soon this reverses and the values of  $x$  become greater and remain so to infinity. This change of values might correspond to the appearance that in the development of states of love of the Lord or of love of self, truth, or falsity appears to lead in the formation of such states, but later, love, good, or evil, takes the conscious lead.

In Case 3 the opened end of the parabola is toward the North (Fig. for Case 1), and its equation then becomes  $x^2 = 4ay$ . The parabola in this Case then represents an affectional state which has grown out of false beliefs either ignorantly held or held from a love for what is false. The North represents the falsity of evil or the falsity of ignorance (Arcana Cœlestia, nn. 737<sup>2</sup>; 3708; 1458<sup>2</sup>).

In the last Case the parabola is so placed that its opened end is now toward the South and its equation is like the preceding one excepting that there is a minus sign before the  $4ay$  and the values of  $y$  are minus. In this position the parabola represents a state of intelligent love for the neighbor, for the South corresponds to such intelligence (Arcana Cœlestia, nn. 402<sup>4</sup>; 1458).

But here again we must note that in the last two Cases the  $y$  or truth ordinates are at first *less* than the love or  $x$  ordinates, but that soon this changes and the  $y$  or truth ordinates become the larger and remain so to infinity. This fact might express the truth that in the early development of a false love of the

world or a true love of the neighbor the emotional element is more predominant as in childhood and youth, but later when the natural or the spiritual rationality becomes established truth or falsity takes the lead:  $y$  becomes larger than  $x$  and remains so.

In the consideration of the curve before us, however, there are some little details of construction which as yet have not been considered from a spiritual point of view. These are the axes, the directrix, the focus, and the value  $a$  in the equation  $y^2 = 4ax$ . The directrix DR (Fig. 3) and the axes XX' and YY' are evidently the fixed lines of reference from which all measurements are made, and as such they doubtless correspond to the fixed memory knowledges of goodness or evil, and of truth or falsity, on which the affectional life of man rests, and to which this life refers for confirmation and growth. The distance  $a$  or CO or OS because a constant for any given parabola, and because its value only varies the *size* of the curve but not its *shape*, perhaps corresponds to one's environment and its limitations, because these, while they may hold in check or encourage the development of the emotional life of man, do not change the essential *quality* of the emotions themselves. And finally, the focus S of the parabola very likely corresponds to the central purpose or ruling love, for from this point all other points on the curve are determined. Moreover, in parabolic mirrors, such as we find in the headlights of locomotives, the light is placed in the focal point because all rays from it are then thrown forward in parallel beams. This is interesting and perhaps expresses the spiritual truth that when the ruling love is joined with its intelligence or its falsity it is then in its activity and life and concentrates all its powers on what is before it.

But be this as it may, in closing the writer wishes to add only this, that the above study in its entirety is but a "feeling of one's way," as it were. It is intended only to be suggestive and not final. The field is new, and yet one into which it may be time for us to try to enter; for the possibilities are great and the new things to be found may be of much practical value in the study of the problems of the inner life.

WARREN GODDARD.

## CURRENT LITERATURE.

### THE THEOLOGY OF THE CHURCH OF ENGLAND.\*

It is a well-known fact that one of the most revered and influential of the early New-Churchmen of England, the Rev. John Clowes, was a clergyman of the Established Church throughout his long ministerial career, serving as rector of St. John's Church in Manchester for a period of nearly sixty-two years. It is needless to dwell here upon his distinguished services in behalf of the New Church. The significant fact for our consideration at this time is that he never severed his allegiance to the Church of England, and that he was allowed to continue as rector of his parish after his acceptance, and in spite of his advocacy, of the doctrines contained in the theological writings of Swedenborg. This fact is significant for two reasons: first, that as an earnest and conscientious New-Churchman, he did not find it impossible to serve as an Episcopal minister; and second, that as a well-known and open advocate of New-Church doctrines, he was not deposed from his position by the ruling clergy of his diocese. The latter fact is evidence of remarkable toleration of freedom of opinion in that Church,—in further evidence of which toleration we may instance the acceptance of the late Rev. Charles Augustus Briggs to membership in the American branch of that Church, subsequent to his suspension from the Presbyterian Church for heretical opinions.

John Clowes began his ministry a few years before the death of Swedenborg, and did not become acquainted with any

\**The Theology of the Church of England.* By F. W. WORSLEY, M.A., B.D. (The Great Christian Theologies.) 259 pp., 8vo. New York: E. P. Dutton & Co. 1913. \$2.25.

of the latter's writings until a year or so after that inevitable event. In his autobiographical sketch he tells us that at the beginning of his ministerial career, "his theological researches had been very limited, and his religious views were accordingly very imperfect." This will probably account for the fact that in his mind the old doctrines and the new did not so clash as to make him uncomfortable in his relations with his mother church. But they did so clash in the minds of many other early students of Swedenborg; and in 1787 active steps were taken by them for the formation of a New-Church society. Instead of being in sympathy with these efforts, Mr. Clowes was earnestly opposed, and consequently did what he could to dissuade those concerned from carrying out their undertaking. He maintained that, whereas an interest in Swedenborg's writings was then rapidly growing within the organization of the Established Church, it seemed highly probable that the founding of a special organization upon those writings would at once arouse jealousy, antagonism, and prejudice, that would be highly inimical to the progress of this general interest; and therefore he contended that separation at that time was "inexpedient and premature." With regard to the separatists' contentions concerning the doctrines of the Trinity and the Divinity of the Lord, he maintained that both Old Church and New acknowledge these doctrines, and that the only difference is in "the manner of conceiving and expressing them." This lax position, however, did not satisfy those whom he sought to influence, who still insisted upon "the dangerous tendency of the Liturgy of the Old Church in keeping up an idea of three Gods," and were earnest in desiring to participate in a purified worship based upon the "acknowledgement and profession of One God in the Divine Human Person of the Lord Jesus Christ." Indeed, there were many in Mr. Clowes' own congregation who were of this disposition, and who in due time left his church, and formed a New-Church organization under the leadership of his former curate. To them the question, What does the Established Church stand for? could not be answered in a way to allow them conscientiously to continue their allegiance to it.

This consideration naturally brings us to the question, What does the Church of England stand for? What is its theology? This question Mr. Worsley has attempted to answer in the book before us, entitled "The Theology of the Church of England"; and he has made his subject sufficiently clear in a very readable volume. To any of our readers who may be interested in the subject, we heartily commend this treatise, which we have ourselves read with much enjoyment. Concerning the doctrinal positions of his church, our author tells us that "the great foundation facts are set out in the three creeds [Apostles', Nicene, and Athanasian], but the superstructure is found described in the Catechism and in the Thirty-Nine Articles" (p. 74). He places the Book of Common Prayer in our hands as the manual of Episcopalian theology for our study, at first dwelling somewhat upon the history of that volume and of the Thirty-Nine Articles, and then taking up the latter as he feels inclined, and in his treatment of them quoting supplementary statements from other parts of the book. Let us now consider briefly some of the more important tenets of that body.

When calling our attention to the fact that the Book of Common Prayer has relatively little to say concerning the Being and Nature of God, Mr. Worsley states that this is undoubtedly because "these all-important truths were not the subject of controversy in Reformation times." The creeds accepted by the Church of England were resultants of theological battles concerning these matters in centuries long before the Reformation.

As to the Trinity, the statement of the Athanasian Creed is set forth, and then Mr. Worsley explains that the words "Person" and "Substance" in that creed are not adequate or satisfactory as regards the ideas they are intended to express; and he maintains that the wording of that creed was due not only to the limitations of human language, but also to an endeavor to guard against two dangers in the description of the Godhead: "(1) that of exaggerating the distinctions and so separating the 'Persons'; and (2) that of explaining away the distinctions, so as ultimately to deny their reality." In

this connection we cannot but recall the statement of Swedenborg, that the Athanasian Creed is true if instead of a Trinity of Persons we understand a Trinity of Person.

When we come to the consideration of the phases of the Trinity, however, we find the usual matters for serious criticism; for the traditional idea of the Atonement is set forth, though the details are not much dwelt upon. We are told that the Church of England recognizes that the doctrine of the Incarnation has its difficulties, but that it does not care to argue concerning either the cause or the necessity of that most important event. The heavenly Father gave His only begotten Son to suffer death upon the cross for our redemption; and by the voluntary sacrifice of the Son upon the cross, full satisfaction was made for the sins of the whole world. "Through the activities of God the Holy Spirit, each life may become a sphere to which the principle of the Incarnation is extended" (p. 56). The Church does not insist upon much more than this. But as a full explanation of all this inevitably tends to the customary tri-theistic phase of the Deity, with all the other objectionable features of the old doctrine of the Atonement, the errors of this conception are very evident from the New-Church point of view.

The present day attitude of the Established Church towards the Bible is one of great reverence, but at the same time one considerably influenced by the "results" of modern Biblical scholarship. "She does not uphold the old doctrine of the verbal inspiration of the Bible, but she firmly believes that the Scriptures were inspired, and she makes a great point of their primary importance" (p. 63). *How* the Scriptures are inspired, she does not say; and there is no hint that there is a hidden sense within the letter. Contrast this with Swedenborg's teaching:—

Lest man should be in doubt whether the Word is such [that holiness is in every sentence, in every word, and in some places in the very letters, and that the Word conjoins man with the Lord and opens heaven], its internal sense has been revealed to me by the Lord, which in its essence is spiritual, and is within the external sense which is natural, as the soul is in the body. That sense is the spirit which gives life

to the letter; it can therefore bear witness to the Divinity and sanctity of the Word, and can convince even the natural man, if he is willing to be convinced. (*Sacred Scripture*, n. 4.)

Much stress is laid upon the importance of the sacraments of Baptism and the Holy Communion, though the teachings concerning them are not in harmony with those of the New Church. However, these teachings involve many precepts with regard to goodness of life that are far from the doctrine of salvation by faith alone.

But little space is allotted to such important subjects as the Knowledge of Life after Death, the Second Coming, and Hell and the Devil. With regard to the first of these, the Established Church makes no profession to any but the most meagre knowledge. Still in this connection it is interesting to note that our author points out that there is an intermediate state in which "the soul must go through a process of purgation" (p. 219); for "it is evident that no one can expect to enter heaven until they have arrived at a state of perfection. The intelligent will know that none of us ever depart from this life in such a state; and will also realize that death does not endow us with immediate perfection" (p. 218).

As to the Second Coming of the Lord, the subject is apparently of but little interest to Mr. Worsley, for he contents himself with merely pointing out that the Prayer Book contains many references bearing upon the matter; such as, that a day of judgment is coming, that Christ will be the judge, that He will come in the clouds of heaven with the angels, that this event will constitute the end of the present age, etc. (p. 226). There is no suspicion of the fact that the Second Coming has already taken place.

With regard to Hell and the Devil, we are instructed that, according to her formularies, the Church of England believes that there is such a thing as everlasting punishment, and that such is clearly the teaching of Scripture. Moreover, the Prayer Book certainly teaches that there is a personal devil (p. 228).

As a final word we may say that if loyalty to truth is a virtue, we do not see how in the present day any man who

really believes in the teachings of Swedenborg can become a member of the Episcopal Church or officiate as an Episcopal minister. Yet the long and dignified history of that Church, the impressiveness of its service, the social standing of many of its votaries, are external factors that carry much weight in the estimation of some minds. But the doctrines of the New Church are sufficiently explicit in teaching us how to value external considerations as compared with internal.

B. A. W.

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### EUCKEN AND BERGSON.\*

POPULAR interest in Eucken and Bergson just now gives to this book a timeliness which will no doubt secure for it a wide reading. Their significance for Christian thought is sure to be a matter of much earnest discussion. The author is a sympathetic reader of both, and gives a very good impression of their chief characteristics. He is, however, too much a student of present religious conditions on his own account, to keep his views and interpretations in the background; and his quite decided literary style imposes upon the reader the task of disentangling the thought from the rhetoric.

It is no easy matter to discover just what position the author himself holds towards Christianity. In fact he seems to waver between "naturalism" and "dogmatism." In trying to accommodate himself to modernism, he uses the language of Christianity in a way that is both strange and baffling. He is evidently influenced by modernism to emphasize the autonomous character of individual religious experience, and to oppose this to the authority of the historic Christ. On the other hand, he seems ready at times to identify Christ with God; but his interpretation of Christianity is so clothed with conventional figures of speech, that it is difficult to get at his

\**Eucken and Bergson; Their significance for Christian Thought.* By E. HERMANN. Boston: The Pilgrim Press. London: James Clarke & Co. 1912. Third edition. 215 pp., 8 vo. \$1.00 net.

real thought. The final impression he leaves is, that he has no clear and consistent theory of the Christian faith.

The above characteristics pervade the author's treatment of both Eucken and Bergson, though naturally they are more in evidence in the treatment of Eucken.

Bergson's avoidance hitherto of the religious field makes his significance for Christianity highly problematical. The point at which our author attaches such significance, is the living movement of reality and the actual contact with this movement in the act of intuition. Just as reality in general is known by plunging into it and living it, so Christianity is understood in the intuition we get in actual Christian experience. Bergson's doctrine of creative evolution is somewhat vaguely connected with the divine process of Incarnation. It must be said, however, that Bergson's relation to Christianity remains to be seen in works yet to be written.

But with Eucken it is different, for in his case there is a great wealth of material for exhibiting his relation to Christianity.

Here our author is more successful in showing the Christian significance; and it must be said that the result is for the most part an essential opposition. In fact our author is fully conscious of "Eucken's sharp divergence from historical Christianity." Eucken is quite fairly represented as sharing the modernistic view that Jesus was a mere man, though a man of perhaps exceptional religious importance; and he is furthermore correctly represented as conceiving of religion, not as contact with a personal God, but as the individual's consciousness of the absolute spiritual life and the results of that consciousness.

In a word Eucken's view is neither religious nor Christian, but is a species of spiritualism, a spiritualism which gets its character from the appropriation by the individual of the universal. Spiritualism according to this view may be set in opposition to naturalism, if by naturalism is meant individualism. The conflict between the spiritualism and the naturalism so conceived may be likened to the conflict in the Christian life between the "flesh" and the "spirit." But the

two have a very different religious significance. So too Eucken makes frequent use of the word redemption, but it is redemption of the particular by the universal, not the redemption of the sinful person by the personal Savior.

As against some of the outworn dogmas of historic Christianity, Eucken is more or less effective. His rarefied naturalism is stimulating to the ethical and religious imagination; but apart from his appropriation and use of conventional Christian speech, his thought is for the most part distinctly anti-Christian in intent and effect. He should be classed as a rather undecided modernist whose sympathies are with the Christian spirit, but whose intellectual reaction upon modern history has thrown his Christian thought into confusion.

L. F. H.

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### A PSYCHOLOGICAL STUDY IN CHRISTIAN ORIGINS\*

THIS study is interesting and provocative of deep and serious thought. It is permeated with the philosophy of Bergson and Eucken. Mysticism is defined as spiritual reality in God. And the Mystic Way is the thoroughfare that makes it possible for all to enter into this real life, or establish "union with the Absolute." One way to reach this is by that of pure contemplation to the exclusion of all action, as in the East, in Buddhism and Hinduism. The other way is in the positive and activistic mysticism of the West, best represented in the life of true Christian mystics. "In Jesus of Nazareth it found its perfect thoroughfare, and rose at once to its classic expression." This mystic way has marked stages in its development, its beginning in conversion, or re-birth, its progress in education, or illumination, and the final purgation of the soul by which it is cleansed from all attachment to the self-life. This is the crisis of all life, the end of the "way" leading to full union with Reality.

\* *The Mystic Way; A Psychological Study in Christian Origins.* By EVELYN UNDERHILL. New York: E. P. Dutton & Co. 1913. 395 pp., 8 vo. \$3.50 net.

The writer traces these three stages in the life of the Christ, and of St. Paul, drawing further examples from other Mystics. The Christ is taken as the supreme example of "the way." Christ's life is the noblest and the best to follow. St. Paul's comes next to it. (p. 159.) But the writer notes that "the energizing Spirit of Life is lost or degenerates once the stimulus of a great personality is withdrawn." Thus it was in the case of Paul. (p. 214.)

This fact, which cannot be contradicted, leads to the consideration of a point which seems to be lost sight of in this study, as in so many others of the same order. It is the increasing influence in the Here-and-Now of that one Personality of the Lord in all men. The personal influence of Paul, or of St. Francis, or St. Theresa is to-day a negligible quantity. On the other hand the personal influence of the Lord is increasing. He said to His disciples, moreover, "Lo, I am with you alway, even unto the consummation of the age."

It ought to be a matter for rejoicing that so many find so much to reverence in the Lord's character, and even accord Him a unique place among men. But surely there is more than this in His personality as evidenced by this increasing influence, yea, incorporation of Himself in the lives of men. As Browning proclaims:

If Christ, as thou affirmest, be of men  
Mere man, the first and best but nothing more,—  
Account Him, for reward of what He was,  
Now and for ever, wretchedest of all.  
For see; Himself conceived of life as love,  
Conceived of love as what must enter in,  
Fill up, make one with His each soul He loved:  
Thus much for man's joy, all men's joy for Him.  
See if there be not found, that day the world shall end,  
Hundreds of souls, each holding by Christ's word  
That He will grow incorporate with all,  
Groom for each bride! Can a mere man do this?  
Yet Christ saith, this He lived and died to do.  
Call Christ, then, the illimitable God,  
Or lost!

The difficulty here presented is overcome by characterizing these passages, particularly in John, proclaiming the Lord's

Divine Nature, as "proved inaccuracies and impossibilities of the narrative" (p. 217). Nevertheless, the fact of the Lord's becoming "incorporate with all, groom for each bride" presents a psychological problem which appears to be inexplicable on any other basis than the acceptance of Him as "Immanuel, God with us" (Isa. vii, 14; Matt. 1, 23). This will appear an inevitable conclusion to all true psychologists, as the Lord's life presented to us not only in the gospels, but in the spirit of the whole Word of God (Rev. xix, 10), becomes more fully incorporated in humanity.

L. G. HOECK.

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#### AN ARRAIGNMENT OF ROMAN CATHOLICISM.\*

THOUGH every well-informed and unbiased student of ecclesiastical matters knows that the light of history is all that is needed to disclose the pretensions of the Roman Catholic Church, seldom has it happened that a Roman Catholic priest in high standing, to whom the necessary historic knowledge has come, has had sufficient honesty and courage to renounce his allegiance to modern Babylon, and to utter his word of condemnation. The nobility of our author's attack upon the church he was born into, is manifest when we say that we cannot place his volume in that considerable class of anti-papal books that seek to raise a stench over the immorality of the priesthood; but it stands as a scholarly, dignified, and unimpassioned criticism and refutation of some of the fundamental claims of that church.

From an autobiographic sketch of the author, we learn that he was born of an influential family in Salem, Valencia, Spain, in the year 1868. After a series of years in the public school of his native place, he entered upon the studies preparatory to admission into the Franciscan Order, and "by special dispensation of the Pope became a priest at the early age of

\**Roman Catholicism Capitulating Before Protestantism.* By G. V. Fradryssa [pseud. for JUAN ORTS GONZALEZ, PH.D., D.D.] Translated from the Spanish. Mobile, Ala.: Southern Publishing Co. 1908. 360 pp., 12mo. Cloth \$1.00 net; postage, 12 cents extra.

twenty-three." In the course of a few years he "was made prefect of the College of Onteniente, one of the most important in the Provincial University of Valencia." Subsequently many other honors came to him,\* and among them he "received at the hands of the Pope [note this, O reader] the privilege of reading prohibited books (even those prohibited by himself)." Here was his charter of freedom, if ever he cared to use it. Finally the Pope granted him permission to live outside the Franciscan Order. He then went to Mexico, and not long after came to the United States, officiating for a short time at "St. Stanislaus College, Bay St. Louis, in the Diocese of Natchez." About 1904 doubts as to the truth of the Roman Catholic doctrines began to trouble him. "These doubts," he tells us, "deepened as in the performance of my duties I saw the pitiful spiritual condition of my brethren. Study of the Bible and of the early Fathers finally convinced me that Rome was wrong. After many bitter struggles I left Bay St. Louis and came to Mobile, Ala., where, in the dawning light of truth, I wrote my book."

In this volume we find him trusting to careful Biblical exegesis and historical investigation for the force of his attack. While the recent dogma of the Pope's infallibility is made the object of his strongest refutation, he argues no less conclusively against Rome's claims to catholicity, unity, and sanctity, and also against the doctrines of purgatory and the mass.

In the course of his criticism he has occasion to consider Cardinal Gibbon's work entitled "The Faith of Our Fathers"; and he shows excellent reason for believing that, in a work pretending to be a faithful and honest presentation of his subject, that dignitary was not above misrepresenting facts and falsifying history. We might quote instances that our author presents in his criticism of the noted cardinal's

\* "As a priest and a gentleman I can solemnly assure you under oath, that I possess and hold valid, ample and perpetual ministerial faculties from more than twelve prominent prelates, and other special authorities direct from the Pope, which authorities are not ordinarily granted to bishops, much less to priests." (Prologue, p. ix).

book; but in the space that remains we prefer to give further information concerning our author's attitude towards his subject by citing from his Prologue. Addressing his "Indulgent Reader," he says:—

You may never have had the opportunity of reading an author (a Roman Catholic theologian) whose purpose was to defend Christ and His church, while refuting official Romanism. . . . At the outset it must be stated, that if antagonistic to the Roman Catholic doctrine, and as one of its enemies you expect to find mention here of the many scandalous historic calumnies, the effective and plausible sophistries frequently directed against that church, you will be bitterly disappointed and seek in vain, for all such mention has been scrupulously avoided. . . . In conclusion, I desire to say that no pecuniary self-interest has guided me in this work, since I voluntarily abandon and renounce my brilliant ecclesiastical future in exchange for an humble and burdensome manual labor. Neither has rancor nor any other ignoble passion prompted me in my writing. Far from being discharged of the Roman Community, I am leaving it of my own free will, after refusing exceedingly remunerative offers. To be able to live at peace with my conscience, and to proclaim the whole truth, is the only inducement that prompted me in this work.

One thing of especial interest to a New-Church reader, is where the author (pp. 89 et seq.) criticizes the passage in Scripture that is supposed to justify the claim of the Roman Catholic Church to the supreme position as founded by Christ upon the apostle Peter. We refer to that passage (Matt. xvi, 15-18) where, after Peter's confession of the Divinity of Christ, Christ says to him, "Thou art Peter, and upon this rock I will build my church." After stating that the essential teachings of the Gospels are found in all of them, our author calls attention to the fact that, while Peter's confession is common to all, the special words of Christ that we have just quoted are found in *Matthew alone*, whereas we should have expected to find it rather in the Petrine Mark, if anywhere. He then goes on to explain that the evident meaning of Christ's words in this passage is "that the foundation upon which He shall raise His church is the explicit confession to His divinity,"—an explanation sufficiently in accord with that of the New Church.

No open-minded Roman Catholic can read such a volume

as this without being disillusionized; and we cannot but express the wish that millions of them might read it. It is well, too, for others to read it who are not Roman Catholic; for such reading greatly broadens one's outlook, and incidentally gives one implements of honest warfare for use against falsity, when intimacy with some Roman Catholic of suitable disposition, especially one who has read "The Faith of Our Fathers," offers an opportunity.

B. A. W.

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### THE TRUE THOUGHT OF MARRIAGE.\*

ALL praise of love and marriage fall so far short of the reality that extravagant and ecstatic language serves only to emphasize the distance between the thing and the description. "As Phædrus well and truly says, no one has ever dared worthily to hymn Love's praises. Those who undertake it, would do well to recall the apology which Socrates urged when asked to take his turn. . . . 'I really had no idea of the meaning of the word praise, which appears to be another name for glorification whether true or false; in which sense of the term I am unable to praise anything.' . . . Farewell then to such a strain: for that is not my way of praising."

The neat little booklet before us is a fair specimen of what Socrates seems to be objecting to; not that we fail to find some good and true forms of expression in the rather inchoate mass of perfervid speech.

The author's proneness to barbaric phrase formation does not accord with the real dignity of the subject. The reader gets an uncomfortable sense of the sacrifice of good grammar and of intelligibility, if not to poetic license, at least to mystic emotionalism.

With some restrictions of this kind, and with due caution

\**The True Thought of Marriage.* By JOHN MILTON SCOTT. Minneapolis: The Nunc Licet Press. 8 pp., 8 vo. Paper, 15 cents.

as to the author's teachings at certain points, the reader will find in this booklet some happily expressed thoughts on the subject of marriage.

L. F. H.

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### DOES PRAYER AVAIL?\*

THE author affirms that God answers prayer; but his explanations in some important points are untenable. He ably uses the influence of mind over matter, the many facts brought to light by psychical research, and the influence of the sub-conscious mind, to show that it is possible for the Divine Being to influence the world without violating natural law. When he explains how God answers prayer, he becomes entangled in a web of difficulties. He asserts that God does not possess perfect fore-knowledge (p. 110-111), and that He cannot with unerring certainty predict what will be the course of man's thought (p. 112). He also affirms as Scripture teaching that man by prayer "can actually effect some change in the purposes existing in the Divine Mind at the time his prayer is offered" (114). He says, Moses changed God's purposes by his prayer (p. 116); and again "Even to God's eye the future is not wholly uncurtained,—that he carries on processes of thought as we do, elaborates plans, modifies them and sometimes even abandons them altogether to meet the demands of unforeseen exigencies as they arise, that he interferes in behalf of his children and because they ask him, actually forming and executing entirely new, unpremeditated purposes in response to their asking" (p. 119). The author's idea of prayer is, that it effects a change in the Divine purposes, not that it opens the mind to the Divine influences. Thus he denies the omniscience of God in his effort to prove that we can change His will.

JOHN WHITEHEAD.

\**Does Prayer Avail?* By WILLIAM W. KINSLEY, Boston: Sherman French and Company, 1912. 157 pp., 12 mo. \$1.00 net; by mail, \$1.10.

THE PROBLEMS AND THE PRACTICE OF  
PRAYER.\*

THE purpose of this little volume is, to deal with some of the difficulties, both theoretical and practical, connected with the important subject of Prayer, and without any claim to originality to offer some suggestions on the method and manner of prayer. Prayer is defined as "the act by which man puts himself into effective communication with the Almighty" (p. 9); and the purpose of prayer is said to be, not to inform God or to correct His methods, but "to educate us in intercourse with God" (p. 22). After an introductory chapter dealing with the definition of prayer, a series of chapters deals with the questions why, when, where, how, and what for, closing with one on helps. The booklet is instructive and suggestive, but in no way remarkable.

B. A. W.

\**The Problems and Practice of Prayer.* By the REV. S. C. LOWRY, M.A. 78 pp., 16 mo. London: Robert Scott. 1912.

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